

China—1NC

Text: (type out the affirmative plan with ‘People’s Republic of China’ replacing “United States federal government”)

China solves best – global leader in ocean exploration and development

Richardson 11 (Michael Richardson is a visiting senior research fellow at the Institute of Southeast Asian Studies in Singapore, “China raises undersea ante,” July 13, <http://www.japantimes.co.jp/opinion/2011/07/13/commentary/china-raises-undersea-ante/>)

Nestled on the deck of its mother ship, China’s most advanced deep-sea submersible is on its way to the depths of the central Pacific Ocean in a program that is being closely watched in Asia and the West for its mining and military potential as well as its scientific research. **The Jiaolong**, named after a mythical dragon, **is** designed to be **the world’s deepest-diving manned submersible**. The support ship is carrying the undersea craft and its three crew members to waters between southeastern Hawaii and North America where it will attempt to plunge 5,000 meters below the surface of the Pacific, exceeding its 3,759-meter dive in the South China Sea last year. The submersible has a special titanium hull to withstand the crushing pressures of the deep ocean. If the current expedition is successful, the craft is expected to try operating close to its maximum depth of about 7,000 meters in 2012, making it capable of reaching the bottom of almost all the world’s sea areas. **This would elevate China to the top of an exclusive club of deep-sea submersible operators, putting it ahead of** Japan, Russia, France and **the United States**. China says **one of its main aims is to be in prime position to explore and exploit** what experts say is **a treasure trove of trillions of dollars of gold, copper, lead, zinc, nickel, manganese, cobalt, iron and other minerals in rich reserves on the seabed of the ocean**, which covers more than two-thirds of Earth’s surface with an average depth of 4,000 metres. Sustained rapid growth of China’s economy requires access to ever more resources. Chinese leaders are looking to the oceans and seabed as a key frontier for the future, in case supplies on land run short or are withheld in a crisis. Some seabed deposits are also richer than those on land, among them deposits of gold, which is currently fetching near record prices, and cobalt, used to make corrosion-resistant light, strong metal alloys and paints. **China hopes to use superior deep ocean technology to increase its influence and leverage over resource control in territorial disputes** with several Southeast Asian countries and Japan in the South and East China seas. This aim was symbolized when the Jiaolong used a robotic arm to plant a Chinese flag on floor of the South China Sea during one of its 17 dives in May and June 2010, the longest of which lasted over nine hours. China also wants to tap reserves of natural gas in frozen hydrate form in offshore areas it claims and in international waters. Chinese scientists say that have found huge hydrate deposits in the South China Sea. As the Jiaolong and its support ship prepared to leave port on July 1, Jin Jiancai, secretary general of the China Ocean Mineral Resources Research and Development Association, said that part of the mission was to fulfill a contract between the Association and the International Seabed Authority (ISA), an autonomous inter-governmental body linked to the United Nations that regulates mining in international waters. The ISA is meeting July 11-22 at its headquarters in Kingston, Jamaica. It’s consider approving four new applications for deep-sea mineral exploration in the International Seabed Area. They are from China, Russia, Nauru and Tonga. The two Pacific island-states are sponsoring private mining companies, the first time such applications have been made. The applications from China and Russia are for polymetallic sulphide exploration, also a first for the ISA. Polymetallic sulphides contain mainly copper, lead, zinc, gold and silver. They form massive deposits that can range up to 100 million metric tons. High concentrations of base metals (copper, zinc, lead), and especially precious metals (gold, silver), in some of these deposits have recently attracted interest from the international mining industry as advances in offshore exploration and mining technology brings them within reach. Most of the 100 sites located so far are in the Pacific but only about 5 percent of the seabed worldwide has been systematically searched. Jin said that the Jiaolong’s mission included taking photographs and video footage of the sea floor, and measuring submarine topography and geology, in a 75,000 square-kilometer area designated by the ISA. “With permits from the ISA, China will be able to explore (for) minerals and other resources for commercial purposes in this area once the technology matures,” he added. The mineral potential of the deep ocean seabed was underscored on July 3 when a group of Japanese specialists announced the results of a seabed survey of 78 sites in the Pacific containing rare earth minerals that are critical to a wide range high-technology products for both civilian and military use. They estimated that a one square-kilometer area in one hot spot alone held a cache of rare-earth oxides equivalent to one-fifth of current global demand in a market where China produces around 97 percent of the supply and has sent prices sky rocketing by imposing increasingly tight export quotas. China’s ambitious **deep ocean exploration and development program** only began in 2002. **It is a well-funded, high priority venture involving more than 100 research institutes and companies**. As part of the program, China will launch its second marine remote-sensing satellite later this year at about the time it begins construction of a national research base in the coastal city of Qingdao to accelerate the study and search for deep-sea energy and mineral resources. The Jiaolong and its mother ship will be home-ported at the base. **China is also expected to build its own deep-sea drill ship and a network of automated observatories on the ocean floor.**

China—1NC—Influence Disadvantage (Net Benefit)

China's eyeing political and economic leadership in ocean exploration and development now --- perception of safe leadership guarantees stability over its access to resources

MARLOW 12/30/2013 - Geological and Planetary Sciences at the California Institute of Technology (Marlow, Jeffrey, "China's Deep Sea Ambitions", 12.30.13, <http://www.wired.com/2013/12/chinas-deep-sea-ambitions/>)

Recently, China's Jiaolong manned submersible became the world's deepest-diving state-sponsored research vessel, with four trips to 7,000 meters depth. Around the same time, news broke of plans for a National Deep Sea Center, a \$78 million facility that will operate the sea-going fleet and serve as a central base for oceanographic research and technology development. Months later, the center's director, Liu

Baohua, announced a nationwide search for oceanauts, men and women who will pilot Jiaolong and its planned sister sub around the ocean's depths.

It's all part of China's rhetorical, financial, and strategic return to the sea a realm that it dominated several centuries ago.

Chinese maritime strength reached its apex in the early 15th century, as admiral Zheng He crisscrossed the Indian Ocean with enormous fleets, returning with gifts (most famously a giraffe) for the Emperor. But a few years later, as political winds shifted, the Ming Dynasty ended the epic voyages, choosing instead to focus on other, more local, priorities. This abrupt 180 is frequently

cited as a cautionary tale highlighting the dangers of isolationism, a poor strategic move that doomed the discoverers to become the discovered. So why the resurgence

in sea-based activity? Dean Cheng is a Research Fellow at The Heritage Foundation and an expert on

China's technological ambitions. He points to the innocuously named "863 Program" as an

underappreciated game changer that reconfigured the country's relationship with technology across

a number of disciplines. In March of 1986 (hence the "863" title), four prominent engineers wrote to then-Chairman Deng Xiaoping, warning of impending doom for civil society's scientific institutions. A long-standing focus on military might had neglected other aims of technological development, and if China didn't redistribute its resources soon, it would be fated to watch the "new technological revolution" from the outside. Xiaoping took the argument to heart, initiating research and exploration programs focused on seven key fields:

biotechnology, space, information technology, lasers, automation, energy, and materials science. Marine Technology was added to the roster in 1996, well coordinated with the

country's broadening regional influence and growing appetite for sea-based resources. "China has

become much more dependent on the oceans and ocean-based trade for food and commerce," notes

Cheng. "They'd also like to know what's off the coast; there are vast unexplored swaths of their

seabed as well as deeper ocean reaches that could prove useful." And while Plan 863 indicates a formal commitment to oceanographic

exploration, China's movement has been measured and deliberate, similar to its spacefaring progress. With all

the fanfare surrounding the country's entry into manned spaceflight, it's important to maintain historical perspective. In the decade since it became the third country to put a man in space,

China has completed four flights; the bulk of the Space Race, from Gagarin to Armstrong, happened in less time. It seems likely, then, that the oceanaut

program will be a slow burning initiative, the leading edge of a larger oceanic strategy. Going forward, China will

continue to consolidate its strategic interests and look to secure access to resources, whether in the

form of deep ocean minerals or coastal fish. As Cheng explains, there are relatively few sudden interests in

Chinese politics. The broader set of research areas tend to be methodical in the development process — it's been true for outer space and it's true for inner space too."

volatility of the plan guarantees economic and geopolitical competition --- encroaching in China's sphere risks global conflict

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Cooperation: Key to the Global Future”, January 13, 2014, http://www.ciis.org.cn/english/2014-01/13/content_6606656.htm)

The world has achieved unprecedented peace, prosperity, and inter-dependence, but past achievements — and further progress — are threatened by a host of looming challenges. Global institutions that served us well and transformed the world are becoming victims of their own success and must be reformed or replaced to deal with new challenges and take advantage of new opportunities. Governments everywhere face rising expectations and increasing demands but find themselves less able to manage the challenges they face. The next round of challenges can only be managed successfully if nations, especially major powers, cooperate. Moreover, **the most difficult and most consequential challenges cannot be managed effectively without sustained cooperation between** the largest developing country, **China, and** the largest developed country, **the United States.** Stated another way, the ability of China and the United States **to work together on critical global challenges will determine whether the world is able to sustain and enhance mutually beneficial developments or fails to cope with the issues critical to the global future and to the security and prosperity** of the United States and China. This shared conviction persuades us that we must do more than just hope that our countries will find ways to cooperate. **This report represents a joint effort to develop both the rationale and concrete mechanisms for sustained, proactive collaboration to address challenges resulting from long-term global trends and consequential uncertainties. It builds on the findings of independent efforts to identify megatrends and potential game-changers with the goal of developing a framework for the US-China relationship that will better enable us to meet the challenges facing the global community and the strategic needs of both countries.** The Joint Working Group recognizes that **China and the United States hold different views on many bilateral and international issues, and that our relationship is constrained by mutual suspicion and strategic mistrust.** Nevertheless, our common strategic interests and responsibility as major powers are more important than the specific issues that divide us; we must not make cooperation on critical global issues contingent on prior resolution of bilateral disputes. Our disagreements on bilateral issues are important, but they are not as important to our long-term security and prosperity as is our ability to cooperate on key challenges to global security and our increasingly intertwined futures. We must cooperate on global challenges not as a favor to one another or because other nations expect us to exercise leadership in the international system. We must do it because failure to cooperate on key global challenges will have profoundly negative consequences for the citizens of our own countries. The Joint Working Group has no illusions about how difficult the task ahead will be. **Leaders in both countries face relentless domestic pressures to focus on near-term issues, often to the detriment of long-term interests, as well as on looming US-China bilateral differences and mutual suspicions.**

This report seeks to illustrate why it is imperative and how it is possible to pursue long- and short-term interests at the same time. How We Reached Key Assessments and Recommendations: Generous support from the China-United States Exchange Foundation enabled the Atlantic Council and the China Institute of International Studies (CIS) to establish a joint Working Group of experts from both countries. The members of the group met in Beijing and Washington in the spring and summer of 2012 to compare and integrate the findings of separate Chinese and US draft reports on global trends. The Chinese projection of trends, entitled Global Trends to 2030 and the Prospects for China-US Relations, was prepared by CIS with contributions from the School of International Studies at Peking University. The US report, Global Trends 2030: Alternative Worlds, was prepared by the US National Intelligence Council (NIC). [1] The Atlantic Council contributed to the NIC report and members of the NIC team attended (as observers) the joint assessment meetings. This review confirmed that the independently developed reports were generally consistent in their assessments of global trends and provided a solid basis for development of scenarios to illustrate what might happen under different assumptions about cooperation between China and the United States. The scenarios in both analyses depict markedly different outcomes for China, the United States, and the world. When China and the United States cooperate to meet looming challenges, both countries benefit. When they fail to cooperate and pursue narrow interests or win-lose or zero-sum outcomes, both countries lose. Continuing down the path of drift and episodic cooperation that we are on now also leads to lose-lose outcomes. The obvious advantages of win-win outcomes and dangerous implications of behaviors that eschew or minimize cooperation create strong incentives to focus on megatrends, critical challenges, and enhancing the likelihood of success and mutual benefit through close and continuous collaboration. This report outlines the case for collaboration and makes several specific recommendations to make cooperation both possible and fruitful. It was drafted and circulated among group members for revisions and to ensure consensus. China and the United States have different interests, objectives, and perspectives on many matters, and the number of issues in dispute may well grow as we broaden our bilateral relationship and at times disagree with one another on the world stage. Resolving some of these issues will be difficult and require much time and effort. The resolution of these contentious issues in the US-China relationship, however, must not be made a prerequisite for cooperation on a limited but arguably more important set of issues with the clear potential to harm both of our interests. Continued drift toward strategic competition and failure to find a balance of interests on core issues will undermine support in both countries for cooperation on major global issues of mutual interest and benefit. Cooperation on shared global challenges may build trust and make it easier to resolve nettlesome bilateral issues. But that would be an ancillary benefit and should not be the primary reason for collaboration on the global challenges identified in the independently prepared studies and summarized elsewhere in this report.

The primary reasons we need to work together on the global challenges are that they cannot be addressed successfully unless we do, and that failure to deal effectively with consequential megatrends will have deleterious consequences for China, the United States, and the world. It is difficult to envision a stable, prosperous global system absent a US-China relationship that is largely a cooperative one. Forces and megatrends that are visible but not well understood today will shape the futures of people everywhere. The list include(s) consequences of globalization that increase prosperity but also increase demand for water, food, and energy. It also includes demographic change and effects of climate change that will intensify the consequences of other megatrends and make them more difficult to manage.

Some of the megatrends and the way they interact will threaten social and political stability unless managed effectively. All have profound implications for governance and global stability. How effectively governments meet and manage these challenges in the next ten to twenty years will determine how beneficial or detrimental they will be for our countries and our children. Successfully navigating the turbulent waters ahead will require understanding the challenges we face and foresight about the implications of alternative paths. Our common goal must be to avert or ameliorate negative outcomes, and to maximize the chances of achieving desirable outcomes. To accomplish this goal, China and the United States must establish and draw on a continuing dialogue on the evolution, implications, and possible policy responses to the most consequential megatrends, key uncertainties, and disruptive change. The framework and policy recommendations of this report seek to jumpstart that process by suggesting mechanisms for collaboration that begin bilaterally but eventually include other nations critical to finding paths to a better future for all. C. Critical importance of China-US Cooperation: The global future is likely to be increasingly volatile and uncertain. The rate of change is increasing, driven by the accelerating pace of technological development, unprecedented urbanization and growth of the global middle class, and a wide range of challenges beyond the control of any one country but potentially affecting the prosperity and security of all countries. Disruptive change in one geographic or functional area will spread quickly. No country, and certainly not those with the largest populations and largest economies, will be immune. Global challenges like climate change, food and water shortages, and resource scarcities will shape the strategic context for all nations and require reconsideration of traditional national concerns such as sovereignty and maximizing the ability of national leaders to control their country's destiny. What China and the United States do, individually and together, will have a major impact on the future of the global system. As importantly, our individual fates will be inextricably linked to how that future plays out. The three illustrative scenarios sketched out below underscore how critical the future of the US-China relationship is to each country and to the world. • Global Drift and Inaction (the present world trajectory): In a world in which nations fail to resolve global problems and strengthen mechanisms of global cooperation, governments gradually turn inward. Each nation seeks to protect and advance its own narrow national interests or to preserve an unsustainable status quo

that is rapidly changing in ways that erode the international order. The international community's lack of ability to cooperate to meet global challenges leads to international crises and instability. • **Zero-Sum World: Unsustainable drift leads to a world of predominantly zero-sum competition and conflict in the face of severe resource constraints. The result is economic crises and internal instability as well as interstate confrontation. There is risk of military conflict between major powers, which increases global mistrust and uncertainty and fosters an “each nation for itself” mentality that further undermines the ability of states to cooperate in**

the face of growing common challenges.

• Global Revitalization and Cooperation: To escape the perils of drift or zero-sum competition, leaders in countries with the most to lose work together to manage and take advantage of global challenges and megatrends. Cooperation makes it possible to achieve win-win outcomes that avoid or mitigate negative consequences of increased demand for resources and the impact of climate change as well as to harness new technologies to improve living conditions through sustainable development. Cooperation creates and utilizes new transnational institutions to prevent conflict and enhance security for all. China and the United States become more prosperous as we work together. The possible futures sketched out above (and developed at greater length below) are intended to stimulate thinking about how current trends and uncertainties could lead to very different global and national outcomes. For many reasons, the United States and China will have greater ability and incentives than other countries to cooperate in determining and shaping developments over the next two decades. Indeed, it is very difficult to imagine a pathway to "global revitalization and cooperation" in which China and the United States do not cooperate and provide critical international leadership. Many factors will shape the future, some of which are beyond the control of any nation state, but China and the United States – and the character of the US-China relationship – will be critical. The mutual dependence on each other's economic performance and the success of the global economy as a whole was demonstrated during the 2008 financial crisis that began in the United States but quickly spread around the world. US and Chinese leaders recognized that they were in the "same boat" strategically and engaged in a closely coordinated response to the crisis, which played a key-if not decisive-role in preventing the situation from becoming much worse. The need for joint and coordinated responses to economic crises and to mounting economic challenges and threats is certain to increase as globalization continues and interdependence deepens. • Critical Megatrends There are many global trends that are positive, including greater prosperity, global economic convergence after two centuries of Western economic preponderance, profound social changes driven by rapid scientific and technological changes, a growing global middle class, widespread improvement in global health and life expectancy, and overall reduction in war and violent deaths. The great advances in human prosperity over the last several decades and the potential for greater gains in the future are to be celebrated, but they also create new challenges shaped by megatrends in the "global operating environment". These megatrends include: • Individual empowerment is an increasingly important factor both within states and internationally. The empowerment of individuals is fueled by education, rising prosperity, and a host of technologies. Empowered individuals, the growing middle class, and domestic NGOs are more willing to engage in political activities as well as to make more demands on government. The sense of national identity is becoming stronger in many places but so too are social identities based on ethnicity, religion, culture, political concerns, and shared causes such as the environment and public health. • Power will be increasingly diffused as the number of players with actual or nascent capacity to influence international developments is increasing. The international system evolves increasing signs of fragmentation and stratification. In addition to the rise of China, India, and Brazil, middle powers such as Turkey, Indonesia, South Africa, and Mexico are playing an ever more important role in the international arena. Further, the growing nations and types of non-state actors such as international NGOs, multinational enterprises, and regional organizations mean states themselves no longer control the system. • Aging and urbanizing populations, accompanied by waves of domestic and international migration, will transform societies and strain capabilities. More than one billion people will be added to the global population by 2030 and an equal or greater number will move to cities. Rising incomes will enable as many as two billion more people to join the global middle class. Nearly all of the growth in the global population, urban dwellers, and the middle class will occur in developing countries. Critical demographic shifts will age populations and change the percentage of working-age cohorts in most of the developed and, increasingly, in parts of the developing world as well. China will be one of the developing countries with

an aging population. Waves of immigration will create or exacerbate significant social problems, but there also will be a huge international marketplace for skilled and talented workers.

• There will be increasing stresses and strains on the global commons. Many challenges to the environment and human security will be intensified by rapidly increased food, water, and natural resource consumption due to growing population, urbanization, and rapid expansion of the middle class. If not managed well, these challenges could have a significant and long-term adverse impact on all nations and the global system. • There is increasing concern that global climate change poses an existential threat to humanity. Climate change exacerbates water shortages and food production challenges; sparks greater migration and social conflict; acidifies the oceans; and leads to more extreme weather events, including sea-level rises magnifying the impact of storm surges threatening coastal cities and infrastructure. There is likely to be more focus by the international community on climate change consequence management, adaptation, and mitigation. III. Key Uncertainties The megatrends summarized above constitute a relatively predictable set of challenges facing individuals and nations, especially China and the United States. But they are not the only factors that will influence developments in the next two decades. The relatively

predictable megatrends will interact with a number of critical uncertainties. Examples include: • The future of the global economy is volatile. The developed countries, especially in the Eurozone, may face a prolonged period of recovery. The developing countries, including China and India, face a "middle income trap". The world could experience growing economic nationalism and trade protectionism as well as an accelerating adjustment of international industrial division of labor as China refocuses on domestic consumption-led growth, other nations increasingly displace China as the low-cost provider, and new manufacturing technologies and lower energy costs encourage the return of manufacturing to the United States and other developed countries.

• In addition, major economic crises could result from the increasing pressure on resource availability discussed previously. • The accelerating pace of technological development is likely to change the global operating environment for foreign policy and national security over the next two decades with uncertain consequences. A wide range of emerging technologies will affect the political, social, economic and security trajectories of states, international relations, and the international system, as have the internet, mobile communications technology, and social media. These technologies range from new energy systems and manufacturing technologies such as 3D printing to bio- and nanotechnology breakthroughs affecting agricultural productivity, human enhancement, robotics, and information availability. On the negative side of the ledger, cyber hacking, cyber warfare, and genomics-enabled bioterrorism have the potential to be highly disruptive. • Nationalistic responses to increasing mutual vulnerability are likely as growing global interconnectiveness and interdependence ensure that developments anywhere in the world, from slowly-developing threats like climate change to short-term crises like the 2008 financial crisis, can affect most nations and citizens yet be largely, if not completely, outside the control of individual states. National responses to common challenges and threats could be "each nation for itself" actions to achieve narrow national interests at the expense of other states and the common good. • Unpredictable events such as natural disasters, extreme weather events, pandemics, or nuclear weapon use by terrorists could be game-changers. An H5N1 or similar pandemic could shut down global transportation and kill tens of millions or more with a huge impact on the global economy, politics, and security. A series of extreme weather events, fomented by Hurricane Sandy's impact on the United States, could change the trajectories of global political efforts to deal with the consequences of climate change. • The future of both China and the United States is uncertain. China has many internal challenges that could limit its willingness to be a "joint responsible stakeholder" with the United States to meet global challenges and resolve regional conflicts. Similarly, the United States faces major economic challenges that could lead to long-term slow growth, a more inward focus, and a less active and influential role in catalyzing cooperation on global challenges. Conversely, one or both countries could achieve considerable success in realizing domestic agendas and feel emboldened to lead the transformation of the global system. • Conflicts could become more or more intense as a result of social unrest, religious extremism, reduced provision of public goods, power shifts, and individual empowerment. The world's security and stability may become increasingly fragile as a result of state failure, nuclear proliferation, or dramatic acts of terrorism, especially in unstable regions like the Middle East and South Asia. • Regional instability may have global impact. A major conflict in the Middle East, including over Iran's nuclear weapons, could draw in outside powers, disrupt oil supplies, and send the global economy into recession. Failure to resolve or indefinitely shelve territorial disputes in East and Southeast Asia could limit the ability of regional states to cooperate in global as well as regional efforts to cope with global challenges. Military conflict over these disputes also could destabilize the Asia-Pacific region with grave consequences for the global economy and international

stability. An existential crisis of the European Union could disrupt the cohesiveness of what is now the world's largest economy. IV. Governance and Cooperation Challenges of Megatrends and Uncertainties

Although no one can predict with confidence exactly how events will play out in the years ahead, we can be confident that the challenges and choices facing decision-makers at all levels and in all countries will be shaped by the interplay of megatrends, known uncertainties, unexpected "black swan" events, and the decisions of governments and nongovernmental actors.

• Waiting to see how events unfold is a possible but undesirable choice because waiting is, in effect, a decision to do nothing and hope for the best. We can and must do better than that by working to shape events in ways that reduce uncertainty, avoid or ameliorate undesirable trajectories, and increase the likelihood of win-win outcomes. Some of the challenges posed include: • Volatile global economy: Slower economic growth and potential crises such as a Eurozone meltdown, another global financial crisis, or a sustained spike in food prices could slow or reverse progress toward greater prosperity and better lives for more people. Growing inequality (poor economic efficiency) could further compound the challenges. Although the rich and the poor alike may become richer, the absolute gaps between them likely will widen, both within and among countries and regions. Moreover, the middle class may continue to be squeezed not only in developed countries but also in developing countries despite more rapid economic growth, especially as the gap widens between the middle class and the super rich. • Increasing internal pressures on governments: Demands on governments at all levels likely will increase faster than the availability of resources required to satisfy them. More people with rising expectations and greater awareness of conditions at home and elsewhere will have more tools, especially social media, to organize and put pressure on governments to provide more services and opportunities. The rising middle class in the emerging economies likely will expect and demand more and better quality food and water, more reliable supplies of cleaner energy, improved infrastructure, and healthier environments. Governments could find it difficult to meet rising expectations, however, especially growing demand for increasingly limited resources, which will push prices upward and exacerbate economic and social instability. At the same time, some of the poorest countries with ineffective governments may be pushed into internal conflict and state failure by tribal, ethnic, and religious strife as well as economic and environmental distress. These internal conflicts could lead to regional instability as environmental and economic migrants spill into neighboring states. Global cooperation gaps widening: Increasing globalization and interdependence could make it more difficult for national governments to manage new challenges on their own, but transnational institutions will be increasingly ill-suited or even incapable of meeting twenty-first century challenges. To meet the growing challenges, existing global mechanisms, most of which are legacy institutions from the post-World War II era designed to solve problems from the inter-war period, must be reformed or replaced. That will not be easy. There are 193 countries today that there were when the global system was last reformed in the 1940s and all feel entitled to a seat at the table when decisions are made that will affect their own destinies. This widely shared ethos of democratic participation of all nations makes it difficult to strike a balance between equity of representation and efficacy of decision-making. • Domestic pressures and weak national governments: Governments may become less willing or able to cooperate with other nations as a result of domestic pressures on leaders to pursue narrow national interests. This will increase the likelihood of nations engaging in zero-sum behavior that will make it even more difficult to deal with the most challenging megatrends. • Extremism and fracturing of the nation state: Extremism and separation are likely to be fueled by individual empowerment and tribal, ethnic, religious, and other identities, strengthened by ubiquitous social media. The power and authority of the nation-state is likely to be increasingly circumscribed by the rising power of non-state actors and the growing importance of transnational challenges beyond the state's control. The state is being challenged in many cases by separatist and extremist forces, including religious fundamentalists in Waziristan and Dagestan and regional nationalists in Catalonia and Scotland. • "Black swans" and lack of robust international institutions: Failure to establish robust international institutions and habits of cooperation could reduce the international community's ability to respond to major crises, including black swan events. The latter are high impact but either unpredictable or simply unpredictable calamities such as pandemics, nuclear weapon or biological warfare attacks, or cyber meltdowns. If China and the United States act in rivalry and give priority to parochial interests, it may be impossible for the international community to successfully confront the major challenges of the next twenty years. Owing to their size and importance in the global system, what China and the US do together as well as individually will profoundly affect the international community's ability to engage in robust international cooperation in science and technology to find solutions to the world's most pressing problems. V. Scenarios Illustrate Interconnections and Major Outcomes As the megatrends and uncertainties evolve over the coming two decades and beyond, China and the United States, along with the rest of the world, will face unprecedented challenges and unpredictable, disruptive change. We offer three global scenarios to illustrate how the complex megatrends, key uncertainties, and disruptive changes could play out, depending in large part on whether the relationship between China and the United States is primarily cooperative or conflictual. • Global Drift and Friction: This scenario is characterized by the inability of China and the United States to work together effectively, if at all, to address key global challenges and to resolve regional conflicts. Problems created or exacerbated by the megatrends, key uncertainties, and their interactions worsen, creating a world that is less peaceful, less stable, and less prosperous. The debacle of the 2009 Copenhagen UN climate change conference demonstrated the global impact of the failure of the United States and China to agree on far-reaching steps to reduce greenhouse gas emissions. In this future, the US and China again fail to respond adequately to continuing problems such as economic imbalances and contend with the efforts of many countries to break into and then move into the middle class. There is disruptive economic policy change related in part to both economic and domestic issues. Water, and food resources. Washington and Beijing could be too preoccupied with political and military competition and territorial disputes in the Western Pacific, as well as by bilateral differences over intellectual property and other trade issues, to tackle these pressing problems. Among possible developments, US-China tensions could adversely affect global responses to energy challenges. These range from threats to security of supplies resulting from conflict in the Middle East and Persian Gulf to the need for a global energy transition away from fossil fuels to minimize carbon emissions and the impact of energy price volatility on global economic growth. Further, China and the United States also could fail to cooperate in efforts to mitigate the potentially disruptive impact of greatly increased demand for food, water, and other resources created by the addition of more than one billion people to the global population by 2030 as well as possibly two billion or more people to the developing world through international cooperation and global governmental mechanisms, this could lead to deeper economic crises, worsened political conflicts, and worsening

environmental conditions. • Zero-Sum World: A second possible trajectory could lead to the emergence of an even more competitive and dangerous zero-sum world, in which nations pursue narrow national interests.

For example, the world could experience intense monetary and trade protectionism, with countries seeking geopolitical advantage at the expense of international cooperation for the common good. It could see intensifying rivalries, creating hostilities and rendering cooperation on global challenges nearly impossible as global governmental mechanisms break down or are marginalized.

US-China war causes extinction – existential risk outweighs.

Wittner 11 (11/30/11 Dr. Lawrence, Prof of History Emeritus at SUNY Albany, "Is a Nuclear War with China Possible?")

But what would that "victory" entail? An attack with these Chinese nuclear weapons would immediately slaughter at least 10 million Americans in a great storm of blast and fire, while leaving many more dying horribly of sickness and radiation poisoning. The Chinese death toll in a nuclear war would be far higher. Both nations would be reduced to smoldering, radioactive wastelands. Also, radioactive debris sent aloft by the

**nuclear explosions would blot out the sun and bring on a "nuclear winter" around the globe --
destroying agriculture, creating worldwide famine, and generating chaos and destruction.**

Moreover, in another decade the extent of this catastrophe would be far worse. The Chinese government is currently expanding its nuclear arsenal, and by the year 2020 it is expected to more than double its number of nuclear weapons that can hit the United States. The U.S. government, in turn, has plans to spend hundreds of billions of dollars "modernizing" its nuclear weapons and nuclear production facilities over the next decade.

China CP—2NC Solvency (Generic)

China Does It Better

The Counterplan solves the case and gives china a springboard for ocean leadership

TSERING 2012 – National Maritime Foundation (Tsering, Dolma, “China’s Deep Sea Exploration Research and Capacity Building”, June 28, 2012, <http://www.maritimeindia.org/china’s-deep-sea-exploration-research-and-capacity-building.html>)

The significance of deep sea exploration was evident when first discovery of hydrothermal vents (Hydrothermal (hot-water) vents are formed on the ocean floor when seawater circulates through hot volcanic rocks that are often located where new oceanic crust is being formed. Vents also occur on submarine volcanoes. In either case, the hot solution emerging into cold seawater precipitates mineral deposits that are rich in iron, copper, zinc, and other metals) was made in 1976 and first samples to verify them were collected by a manned submersible vehicle in 1977. Since then countries have intensified their quest for commercial exploitation of resources on the ocean floor. Like other countries, China has committed substantial finances on deep sea exploration. In 1984, China drew its oceanic mine resources plan. This plan gained further traction with the establishment of COMRA in 1990. It is governmental organizations to coordinate

the activities of deep-sea bed exploration and exploitation in China as well in the international sea and is currently responsible for China’s deep sea exploration project at SWIR. **The**

Chinese deep sea exploration capacity can be said to have evolved in three phases. Phase I: (1995-2005) The first major

development for China’s deep sea exploration effort was the launch of its most advanced scientific research vessel ‘Dayang Yihao’ in 1995. ‘Dayang Yihao’ is the only open-ocean going vessel designated and equipped for deep sea research in China. This vessel is equipped with the most advanced global positioning and communication systems and scientific research equipment. It conducts deep sea sampling, drilling and videotaping at the depth of over thousand meters. In 1996, the research on oceanography was strengthened with an allocation of more than 800

million yuan under the ‘Ninth Five Year Plan’ (1996-2000). **During this period, the Chinese government formulated the national plan for implementing the ‘program for marine development by reliance on science and technology’.**

This program laid emphasis on research, development and assimilation of marine reproduction technologies, fine processing of marine biological resources, exploration and extraction of marine pharmaceuticals and exploitation of chemical resources in seawater.

Another major development during this period was the launch of ‘Jiaolong’ manned submersible in 2002. China unveiled this advanced submersible in August 2010 after eight years of secretive development. Like other submersibles, the ‘Jiaolong’ manned submersible operates with a mother ship, ‘Xiangyanghong 09’, an oceanographic research ship subordinate to the North Sea branch of State Oceanic Administration (SOA). With its designed dive capability up to 7,000 meters, it is capable of reaching 99.8 percent of the world’s under-sea areas. ‘Jiaolong’ manned submersible has completed 17 dives in the Pacific Ocean, including dive till 5,188 meters in South China Sea and the latest with 7020 meters at Mariana Trench. ‘Jiaolong’ manned submersible has become an integral tool for China’s scientific expedition on

deep sea resources. Phase II: 2005-2012 **A milestone in China’s project on deep sea exploration was achieved when**

China embarked on its first around-the-world oceanographic sailing mission by ‘Dayang Yihao’ oceanographic research ship in 2005-06. During this global expedition, scientists found tantalizing evidence of active hydrothermal vents at SWIR. They gathered critical data that led them back to the site in 2007. A remarkable breakthrough was made in 2007 when Chinese scientists aboard ‘Dayang Yihao’ discovered hot liquid at SWIR independently for the first time. In 2010-2011 ‘Dayang Yihao’ attempted China’s largest and most expansive global expedition in all the three oceans. The scientists discovered 16 hydrothermal vents, of which five were found in South Atlantic Ocean and 11 in the East Pacific Ocean. China has now discovered 33 hydrothermal deposits comprising one tenth of the discovered submarine hydrothermal deposits, in the last three decades. **A**

significant development occurred on November, 2011 when China launched another state-of-art comprehensive oceanographic research vessel the ‘Kexue’. The vessel displacing 4000 tonnes is equipped with a padded electric propulsion system, the first for a research ship anywhere in the world. According to the chief engineer of the project, the ship can be equated with world-class facilities for water body detection, atmospheric exploration, deep sea environment exploration and remote sensing information research. **China considers that the ship will definitely**

boost its capability in oceanographic surveying and bridge the gap between China and western

marine powers. Further the Chinese media has pointed out that China has plans for the construction of a deep sea scientific research base in eastern Shandong province.

According to a report, the base will cover 26 hectares of land and 62.7 hectares of sea. The total constructed area is 24,526 square meters. Investment for the first phase of the project is 495 million yuan and it will become a national-level public service platform for deep sea scientific research, ocean resources investigation and deep sea equipment development. This base will also serve as the ground support station for ‘Jiaolong’ manned submersible. Phase III-2012 onwards The third phase of China’s research and capacity building on deep sea exploration began in

2012. On 18 April **2012, the State Oceanic Administration (SOA) announced the establishment of a national maritime survey fleet in an effort to improve China’s ability to conduct maritime survey and research**

The fleet consists of 19 survey vessels, 11 of which are oceangoing research ships with a displacement of more than 1,500 tonnes. The ships are separately owned by the SOA, the Chinese Academy of Sciences (CAS), the Ministry of Education (MOE) and other government sectors and institutes with maritime interests. **According to the SOA, the main task of the fleet is to undertake comprehensive maritime survey and complete research tasks as part of major national research projects, international maritime research cooperation and inter-governmental cooperative projects.**

On 28 April, 2012, Chinese research vessel ‘Dayang Yihao’ again departed from Sanya port in Hainan Province for the 26th oceanic expedition mission. Further, China has reportedly spent \$1 billion for ultra-deepwater rig. China intends to use this rig for the exploration of oil and gas resources in the disputed South

China Sea. This development is another indication of China progressing towards building its deep sea exploration capabilities. Conclusion **China is paying great attention to oceanic exploration in fulfilment of its broad policy objective of ‘reasonably utilizing**

oceanic resources’ as laid down in its ninth Five Year Plan. It is looking at the East Pacific Ocean and Indian Ocean for future mining resources. Moreover China is looking forward to build at least 10 more advanced research vessels in the next five to ten years to meet the country’s rising demand for marine exploration. With the successful dive of ‘Jiaolong’ manned submersible till 7020 meters, China now occupies a leading position in this ocean exploration realm. **However, this development has also caused some speculation about the possible military and security implications in Indian Ocean region. The ‘Jiaolong’ manned submersible, which is said to be for civilian exploitation, could be used for dual purposes too.** The submersible has the capability to intercept undersea communication cables, retrieve foreign weaponry on the ocean floor and repair or rescue submarines. It may also be used for clandestine military tasks and special operations. **Taking the dual use connotation also into account, it is considered that the success of this comprehensive maritime research capability will substantively contribute in realisation of the Chinese aspiration of becoming a great maritime power.**

China—Solves Exploration

China solves ocean exploration—key to global soft power

Qiu 10 (Jane, "China outlines deep-sea ambitions," Nature, July 6,
<http://www.nature.com/news/2010/100706/full/466166a.html>)

China is setting its sights on exploring and exploiting the deep sea. Until recently, the country's ocean research focused largely on coastal and offshore waters. But **with its breakneck economic development** demanding ever more resources, **and a growing desire to have more influence** in territory disputes and international waters, **China is investing heavily in its deep-sea research and exploration programme**, experts revealed at a meeting in Shanghai last week. **The move will be reflected** in the country's next five-year budget plan, beginning in 2011, **with increased funding for oceanography, especially in research and development of deep-sea technology**, says Baohua Liu, a geophysicist at China's State Oceanic Administration (SOA). Liu will head a newly approved deep-sea centre in Qingdao, Shandong province in eastern China. Construction will begin next year and is expected to take about three years. The funding boost is largely motivated by China's hunt for oil and minerals, and some scientists worry that research may be sidelined by commercial goals. Others say resource exploration and basic science can coexist. "The strategic shift is extremely far-sighted," says Jian Lin, a marine geologist at the Woods Hole Oceanographic Institution (WHOI) in Massachusetts, one of some 500 participants at the First Conference on Deep-Sea Research and Earth Systems Science. **"It is emblematic of the country as a rising world power,** on a par with its space programme and polar research." **China's** deep-sea ambitions have been bolstered by discoveries from **scientists** onboard Dayang Yihao, the country's main ocean exploration vessel. They **have studied the** very slowly spreading Southwest Indian Ridge (**SWIR**) in the southern Indian Ocean. The ridge separates the African plate to the north from the Antarctic plate to the south and is likely to contain rocks from deep within Earth's mantle.

China—Solves Sonar

Chinese has very advanced sonar – they’ve acquired and upgraded it.

Bussert ‘2

James C. Bussert is employed at the Naval Surface Warfare Center, Dahlgren, Virginia, where he works on surface ship antisubmarine fire control systems with commercial off-the-shelf technology upgrades. “Chinese Naval Sonar Evolves From Foreign Influences” – Signal Online – December 2002 – <http://www.afcea.org/content/?q=node/279>

China had several facilities that could contribute to the design and production of an indigenous sonar.

The first leading-edge development challenge for Chinese naval construction was the Han nuclear attack submarine (SSN). Prior to this, China copied Soviet submarines, destroyer escorts and patrol craft. The largest ship was the Luda, which appeared to be very similar to the Soviet Tallinn class. The Han had sonars installed in 1970, but systems were not certified until 1975. The active sonar was designated SQZ-3 and the passive version was SQC-1. The Shanghai 22nd Radio Plant reportedly produces the SQC-1, but too little time seems to have elapsed to develop the expertise to design and build a sonar more capable than the crude

TAMIRs known to be in production. **China has** had **several highly respected oceanographic universities**. The first was established in Qingdao in 1952, and in 1958 the government created six navy research and development laboratories, including underwater acoustics and underwater weapons. In 1965, China expanded its old Bureau of Oceans into a vast network of facilities, research and forecast centers and bureaus called the State Oceanographic Agency. By 1970, it created special underwater acoustic sites in the Bohai, East China and Yellow seas. Technical institutes known to be very involved in sonar design are Institute 715 in Huangzhou and Institute 706 in Beijing. Other sonar manufacturing plants include the Dongfeng Mechanical Plant that produced the SQ2-D sonar for diesel submarines, the Jiangxin Machinery Plant, the Jiangning Mechanical Plant and the Great Wall Radio Factory in Beijing. Although there are no photographs of indigenous Chinese sonars on warships in open sources, an interesting photograph taken in 1978 inside the J-302 vessel participating in submarine-launched ballistic missile test shots showed a “splashdown monitoring team” manning a unit. With one large CRT and three smaller CRTs above, it looked

like a sonar set, although the operator was not wearing a headset. **Beginning in the mid-1970s, China opted to import modern**

sonars. These tend to fall into two categories. France provided modern sonar equipment from 1974 until 1993. **The second period of modern**

Russian sonar systems extends from 1994 to the present. The first imported French sonars were two sets of the lightweight Thomson SS-12 variable depth sonars in 1974. These can be used as a dipping sonar on antisubmarine warfare (ASW) helicopters or as a variable-depth stern-mounted sonar on a small ASW patrol craft. The five Han-class SSNs reportedly obtained French DUUX-5 sonar sometime around 1974, as did the single Xia nuclear ballistic missile submarine (SSBN) around 1988, although Chinese SQX- designations were used. Three Chinese diesel Song-class submarines carried French TSM-2233 and TSM-2255 sonars beginning around 1988. In 1987, on Haiju patrol craft hulls 688 and 697, SS-12 variable depth sonar (VDS) replaced the aft 57-millimeter guns. These sonars could have been copies of the two acquisitions from France. The workhorse Luda-class guided missile destroyers (DDGs) had their first notable upgrade in 1987. The lead ship built in 1972, DDG 105, received facilities for two helicopters and 57-millimeter guns but no new bow sonar. This was known as the one-of-a-kind Luda II. What is not as well-known is that another Luda, DDG 131, was in a Shanghai dry dock with a large bow sonar dome in the same year but was not called a Luda II. The most capable French sonar provided was the DUBV-23 surface-ship scanning LF search sonar. The first example appeared on the first Luda III conversion in 1990. The two new construction Luhuh DDGs had the DUBV-23 in 1993, and the larger Luhai DDG had one in 1999. The largest and best warships of

the PLAN all sported the DUBV-23, and the Luhuh also had the French DUBV-43 LF VDS aft. China had licensed production rights from France for both sonars. **The**

Russian import sonars are significant because they were included as part of a full weapon/sensor suite on modern vessels that China

bought. **The** modern ASW torpedoes and missiles with associated fire control **systems** **greatly enhanced the capabilities of the**

complex sonars.

China—Solves Flight MH370

China can take the lead—solidifies their global soft power

Ping 14 (Bai, “China displays soft power in MH370 search,” 4-19,
http://www.chinadaily.com.cn/world/2014planemissing/2014-04/19/content_17447521.htm)

China has contributed nine warships and civilian vessels and six aircraft to the search mission fraught with twists and letdowns. It has already cost many millions of yuan according to some unofficial estimates. The Chinese navy's announcement early this week to cancel an international fleet review, partly because of the deployment of some of its most advanced hardware in the Indian Ocean, has underscored the onerousness of its commitments. **Although search teams have seen little light at the end of the tunnel** and the disappearance of the plane remains a mystery, **China has shown no sign of relenting**. Its top leaders have repeatedly pledged to make greater efforts and work with other countries to find the plane. Some cynics may interpret China's resolve as a mere show of its growing economic strength and rising naval capabilities. But many people see in China a nation that has made the moral decision to take care of its citizens wherever they may be. **It's the power of attraction** - not economic or military muscle - **that captures people's hearts and that is what China desires to increase**. For years, **China has been exploring ways of translating potential sources of its soft power into real influence with some success**. Major drives of public relations include hosting the Beijing 2008 Olympic Games and the Shanghai 2010 World Expo, opening Confucius institutes across the world and the "relaunching" of the State media to provide more information about the country. But foreign countries' perception about China has more or less remained "one-sided", for they tend to associate its success on multiple fronts with the "China threat" theory or its problems with the "China collapse" theory, according to officials and experts concerned about the nation's image. While some in China still believe negative foreign views about China can be explained away by providing more information, many have realized that foreigners will continue to rely on their own media which reconstruct the image of China through a different lens. Harvard University's Joseph Nye, who coined the term soft power, has described it as a type of currency different from force or payoffs to engage in cooperation, or an attraction to shared values and the justness and duty of contributing to the achievement of those values. In laymen's language, the values and tenets associated with soft power could probably boil down to the protection of citizens' rights, democracy and the rule of law, with safeguarding of people's interests being at the core. **The search for the lost plane** with 239 people on board, including 154 Chinese passengers, **is a good opportunity for China to showcase its people-first philosophy of governance. Its efforts have won accolades from home and abroad**, which have ranged from being "determined and forceful" in its response to taking "the high moral ground" to being a "responsible superpower". This is not the first time China is carrying out a large operation to help its citizens in trouble overseas. In 2011, it evacuated more than 35,800 of its nationals from Libya during the political crisis in that country. The operation, according to Chinese media reports, involved 91 domestic chartered flights, 12 military flights, five cargo ferries, one escort ship, 35 foreign chartered flights, 11 trips by foreign passenger liners and some 100 bus runs. Yet **the ongoing multinational search for MH370**, arguably one of the largest in aviation history, **has attracted much more global attention** because of the potential loss of many human lives, daunting technical challenges and an increasingly intricate international situation. However long and costly the mission may be, **China will continue to lead it full throttle**. It must.

China—Solves Flight MH370

Factually, China can solve the Seafloor Topography information. They can get the info and it will be shared with the world.

Amos '14

Jonathan Amos, BBC Science Correspondent -- "MH370 spur to 'better ocean mapping'" -- BBC News -- May 27th, 2014 -- <http://www.bbc.com/news/science-environment-27589433>

Scientists have welcomed the decision to make all ocean depth data (bathymetry) gathered in the search for missing Malaysia Airlines flight MH370 publicly available. A detailed survey of 60,000 sq km of seabed is to be undertaken to help refine the hunt for the lost jet. The depth and shape of Earth's ocean floor is very poorly known. Leading researchers say the MH370 example should be a spur to gather much better data elsewhere in the world. The search has been hampered by the lack of a high-resolution view of the bed topography west of Australia. This was apparent on the very first dive made by an autonomous sub investigating possible sonar detections of the aircraft's cockpit voice and flight data recorders. It was forced to cut short the mission because it encountered depths that exceeded its operating limit of 4,500m. There are places thought to exceed 7,800m. Australian Transportation Safety Board (ATSB) officials said this week that **an area in the southern Indian Ocean** the size of Tasmania **would now be subject to a full survey using multibeam echo sounders (MBES).** **A Chinese navy vessel, Zhu Kezhen, has already started** on the project. **It will be joined by a commercial ship in June, with the work likely to take three months.**

China—Solves Ocean Energy

China solves ocean energy best—competition with the U.S. is zero-sum and crushes Chinese renewable lead

Hall 14 (Simon, "China's New Wager: Pulling Energy From the Ocean," March 31, <http://online.wsj.com/news/articles/SB10001424052702303287804579446904069462752>)

A race is under way to unlock one of the world's biggest untapped sources of clean energy—the ocean—with China emerging as an important testing ground. That could heighten competition with Western

companies, especially if Chinese businesses begin using technologies developed with joint-venture partners to expand rapidly. The European Union so far has led efforts to harness the sea to make electricity, for which there are three principal techniques: underwater turbines that draw power from the ebb and flow of tides, surface-based floats that rely on wave motion and systems that exploit differences in water temperature. The world's first commercial, grid-connected tidal-flow generator was installed in Northern Ireland in 2008. Germany's Siemens AG SIE.XE +2.16%, a big investor in wave and tidal power, predicts that tidal currents alone could someday power 250 million households world-wide. France's Alstom SA ALO.FR +2.20% also is developing the technology. But with 11,000 miles of coastline rich with energy potential and pollution that is getting worse, **China is seen by many experts as an**

ideal location to pioneer and commercialize ocean-energy techologies. **China is stepping up spending in the sector**, and foreign companies including U.S.-based Lockheed Martin Corp. LMT -0.70% are testing equipment and entering joint ventures in the country. **Among the**

projects under study with Chinese backing: the dynamic **tidal-power** wall, with **turbines** using curved blades that are designed to allow eels and fish to pass through safely. If approved, the wall could supply as much electricity as 2½ large nuclear reactors—and cost as much as \$30 billion. Investors include the Netherlands government and a consortium of eight Dutch companies, including engineering firms Arcadis ARCA.NL -4.00% NV and Strukton Groep NV. The venture dwarfs other sea-power projects and could produce electricity more cheaply than offshore wind farms, says Dimiti de Boer, a senior adviser for environment and climate change at the United Nations Industrial Development Organization. The project involves building a wall running perpendicular from the coast and then branching off into a T, extending around 20 miles and studded with turbines that would channel and concentrate the power of tidal water. Beijing provided \$3.3 million for feasibility studies that are under way in China. Construction is at least a decade away, though initial findings suggest that shallow waters on the Chinese, Korean and European coasts could be suitable. **"China is at the cutting edge" in sea-energy tech**ology

development, says Mr. de Boer, who is based in Beijing. Making electricity from the sea still is far more costly than using coal, oil, nuclear reactors or wind, and some technologies being tested in China could prove impractical. Since 2010, Beijing has spent around one billion yuan, or roughly \$160 million, on energy from the sea, says Wang Chuankun, a former head of the ocean-energy committee of the China Renewable Energy Society academic association. Atlantis Resources contracted with China's Dongfang Electric to produce low-cost, underwater turbines. Pictured, the AR1000 turbine. Atlantis Resources Overall private investment in sea-energy projects in Europe has reached about \$825 million over the past seven years, and the U.S.

Energy Department is supporting several Pacific Coast research ventures. Chile, Australia and other countries also have substantial projects under way. Many **people in the industry believe China will be key**, however. **Lockheed is working with Chinese conglomerate Reignwood Group, to build the world's first large-scale, ocean thermal-energy conversion power station**. The companies plan to decide by June where in Asia to build the 10-megawatt facility, which will use warm surface water to heat ammonia, which has a low boiling point, making steam to drive a turbine without carbon emissions. The steam is then condensed using deeper, colder water and the cycle is repeated, producing a constant flow of electricity costing around 15 cents a kilowatt-hour. That is more expensive than nuclear power but well below the 22 cents for offshore wind turbines, according to the U.S. Energy Information Administration. Ten megawatts is enough to power about 10,000 Western households. Lockheed believes that building utility-scale generators that are 10 times larger would be economically and technically viable, says Dan Heller, the company's vice president of new ventures. Atlantis Resources Ltd. ARL.LN +8.57% is building the world's largest tidal-flow project, to power 200,000 homes off northern Scotland using hundreds of seabed generators. The company, which is based in Singapore and listed in London, last year signed a pact with China's Dongfang Electric Machinery Co. to produce low-cost, 1.5-megawatt underwater turbines. Atlantis recently agreed to work with Lockheed on improving the design of seabed turbines. Atlantis plans this year to install a turbine for the Chinese government's largest tidal test project, near Shanghai. Israel-based Eco Wave Power is working with the Zhejiang, China, provincial government to assess three sites for a 50-megawatt, wave-powered generator using floats anchored to piers. Each 70-meter breakwater would use 10 floats to make one megawatt of energy. S.D.E. Ltd., also from Israel, is building a third wave- and tide-driven

system using buoys, in the southern Chinese city of Guangdong. Some **experts predict cooperation between Western and Chinese**

marine-energy pioneers could turn into heated competition as the market develops, repeating what happened in the wind and solar sectors. A European Commission strategy paper in January warned of future competition from foreign businesses for a market potentially valued at hundreds of billions of dollars and urged bloc governments to back domestic projects. **"Without a doubt, we will see a rise in the number of disputes between**

Chinese and foreign companies over renewables techology **patents**, including marine energy," says Xiang Wang, a Beijing-based lawyer with Orrick, Herrington and Sutcliffe. The rapid growth in Chinese companies' share of wind and solar equipment manufacturing prompted U.S. and EU antidumping and antisubsidy measures in the past two years and has fueled patent disputes. Many alternative-energy executives are hopeful, however, that **China's involvement will bring the day closer when marine power becomes a significant part of world energy supply**. "Sea-wave technology is a rising star in the

renewable-energy sector," says S.D.E. Chief Executive Shmuel Ovadia. **What is happening in China "might inspire other countries** and other entities to support wave-energy technologies."

Chinese growth fueled by clean tech is key to global sustainability---solves resource scarcity, trade, and global growth---it solves the aff by diffusing tech globally

Changhua **Wu 12**, Greater China Director, The Climate Group, July 2012, "CONSENSUS AND COOPERATION FOR A CLEAN REVOLUTION,"

http://thecleanrevolution.org/_assets/files/TCG_ChinaCC_web.pdf

This transformation, together with growth of other emerging economies, is reshaping the world. Along with the likes of India and Brazil, China's growing economic power has a direct impact on a range of global sustainability issues, from climate change and resource use, to international trade and responsible business investment. With the world's second largest economy and the largest population, China's actions now have global repercussions – for good or bad.¶ Policy and decision makers in China understand this. This is why, after three decades of rapid economic growth, China has started to restructure its economy and transform the way it grows. This means working to decouple energy and resource use from economic growth and reduce greenhouse gas emissions. But this is not being done simply for altruistic reasons. The biggest driver for change is energy and resource security, along with the recognition that global climate change, if left unchecked, has the potential to undermine much of what China has achieved.¶ Over the next five to ten years, China intends to make green development the engine room of its economy. By doing so, China's aim is not only to address its energy and resource concerns, but also to develop and lead the clean industries that will be at the heart of low carbon 21st century economies. And as policies and measures laid out in last year's 12th Five Year Plan demonstrate, China's plans are more than just rhetoric.¶ But success is by no means guaranteed. In the absence of a proven road map or uniform template for green economic growth, a learning-by-doing approach is necessary. Because this means mistakes may be made, China is seeking greater consensus and cooperation in finding systemic solutions to the sustainability problems it shares with the rest of the world. These solutions will require that issues of equity and inclusiveness are addressed. They will also depend on the willingness of all parties to move away from fixed positions, as well as display greater reciprocity.

China—Solves Global/Multilaterally

Chinese action solves the case better: they're key to global stability and US interests

Christensen 8 [Thomas J. Christensen, Deputy Assistant, Secretary of State, Bureau of East Asian and Pacific Affairs, "China's Expanding Global Influence: Foreign Policy Goals, Practices, and Tools," Hearing before the U.S.-China Economic and Security Review Commission, <http://origin.www.uscc.gov/sites/default/files/transcripts/3.18.08HearingTranscript.pdf>]

China has shown great initiative in its multilateral diplomacy over the past decade, proving itself adept at using its rising profile in multilateral institutions to pursue its national economic and political objectives. China has not only been increasingly active in existing institutions of which the United States is a member, most prominently the U.N. Security Council and APEC, but also institutions and groupings of which China itself has been a prime architect but that do not include the United States, such as the Shanghai Cooperation Organization or the ASEAN + 3. While some worry that these latter groupings are designed to drive the United States from the region, in general we do not view them in that light. We have confidence in the strength of our presence in Asia, based firmly upon our multiple alliances, security relationships and economic engagement, and have communicated to the Chinese and others that the various regional groupings should be transparent and should complement, rather than undercut, existing institutions and security relationships. Neither we nor the regional actors view the healthy competition in the region for beneficial economic opportunities and diplomatic influence as a zero-sum game, and all regional actors prefer to maintain positive relations with both China and the United States. In general we view China's greater participation and assertiveness in multilateral institutions as a positive signal that China intends to address its concerns through dialogue and building consensus within these institutions rather than outside of them. We believe that this approach has helped stabilize East Asia to the benefit of all, including the United States. East Asia is essential to the health of the U.S. economy. East Asia is also an important front in the war on terror and a region where our counter-terror efforts have been successful. Fostering a positive multilateral policy by China is, thus, key to U.S. interests.

Mechanism – Aquaculture

China's aquaculture is light years ahead of the US – produce 70% of global output

-Specifically solves: economy, overfishing and food security

World Watch Institute 13

[World Watch Institute, their mission is through research and outreach that inspire action, the Worldwatch Institute works to accelerate the transition to a sustainable world that meets human needs. The Institute's top mission objectives are universal access to renewable energy and nutritious food, expansion of environmentally sound jobs and development, transformation of cultures from consumerism to sustainability, and an early end to population growth through healthy and intentional childbearing, "Fish Farming Continues to Grow as World Fisheries Stagnate," Copyright Date is 2013, World Watch Institute, <http://www.worldwatch.org/node/5444> #KRUGER]

Asia and the Pacific region dominate global aquaculture production, accounting for more than 90

percent.17 China is by far the world leader, with more than 45 million tons produced in 2006-about 70

percent of global output and more than half of the total global value from aquaculture¹⁸ The next closest producer is India, with just over 3 million tons.¹⁹ The only country outside this region in the top 10 producing countries is Chile.²⁰ (See Figure 2.) At the same time that wild marine catches face further decline or stagnation, **aquaculture production offers further growth potential. In China, more than three**

quarters of the fish supply comes from aquaculture, while the average for the rest of the world is 20 percent and rising.²¹ **Sub-Saharan countries in Africa have the largest untapped potential** because of resources like clean water and unused land.²² **Historically, most of the world's aquaculture has focused on species that are relatively low on the food chain, including seaweeds, shellfish, and herbivorous or omnivorous species like carp.**²³ **However, recent trends indicate stronger growth rates in carnivorous species like shrimp and salmon will continue, especially as demand increases**²⁴ (See Figure 3.) Due in part to this trend, growth in aquaculture now drives global fishmeal and fish oil production. Until recently, fishmeal and fish oil

were used primarily for pig and poultry production; today nearly 50 percent of fishmeal and 87 percent of fish oil is used in aquaculture.²⁵ In 1948, only 7.7 percent of wild-caught fish were reduced to fishmeal or fish oil, but that number has grown to 37 percent.²⁶ Because fishmeal and fish oil depend on overly taxed marine fisheries, increasing production on a large scale is unlikely.²⁷ Increasing the use of fishmeal and fish oil in aquaculture raises health and environmental concerns. The rendering process used to prepare these products concentrates the toxins found in the fish, including carcinogenic dioxins, which accumulate up through the food chain to people who eat contaminated fish.²⁸ This problem is seen clearly in farmed salmon, which consistently have significantly higher levels of dioxin than their wild counterparts.²⁹ Another troublesome toxin that accumulates in fish is mercury, which is especially dangerous for children.³⁰ Dependence on rendered fish also decreases the efficiency of farming fish, as fish-derived feed products require more energy to produce than plant-based ones.³¹ For farmed salmon, as much as 90 percent of all energy inputs go into providing food for the salmon.³² Indeed, farmed salmon can require five times more energy per edible protein unit than farmed shellfish.³³ Fish farms themselves, especially ones that raise carnivorous fish, can be a large source of water pollution, including nitrogen and excess nutrients that can create toxic blooms and dead zones.³⁴ Because fish are often raised in high densities to maximize profit, they can require antibiotics and other treatments for diseases, most of which end up in the water.³⁵ These problems have led some researchers and fish farmers to consider alternative practices that would minimize environmental harm while allowing increased aquaculture production. For example, integrated fish farming works at the ecosystem level, using a combination of fish, shellfish, and aquatic plants to filter wastes and provide a self-sustaining source of food.³⁶ Integrated fish farming has been used outside major urban areas to raise fish for food and treat human wastes at the same time.³⁷ **With an ongoing food crisis and a growing world**

population, seafood production could potentially play a vital role in addressing food security and meeting development goals. Fish is highly nutritious and can be an important source of vitamins, minerals, and protein, even when consumed in minimal amounts.³⁸ A recent World Bank survey showed that small-scale fish farming consistently pays off for workers by raising income, creating stable work, and increasing food supplies.³⁹ However, not all seafood production is created equal: **overfishing is linked to poverty, leading to fewer jobs and taking away an important source of income** in developing countries.⁴⁰

Chinese aquaculture solves the affirmative – ensures food security, responsible fishing practices, and economic growth

World Bank Group, 2 / 5 / 2014', the World Bank Group is a multinational group intent on providing economic aid to poor countries and supporting developing ones, "Raising More Fish to Meet the Rising Demand," <http://www.worldbank.org/en/news/feature/2014/02/05/raising-more-fish-to-meet-rising-demand>

A new World Bank report estimates that in 2030, 62% of the seafood we eat will be farm-raised to meet growing demand from regions such as Asia, where roughly 70% of fish will be consumed. China will produce 37% of the world's fish, while consuming 38% of world's food fish. By producing more seafood that is affordable and rich in nutrition, **aquaculture can help improve food security and livelihoods** for the world's poorest. The **rise in seafood demand**

gives countries the opportunity to expand and improve responsible fish and shellfish farming practices. Nearly two-thirds of the seafood we eat will be farm-raised in 2030. This is according to "Fish to 2030: Prospects for Fisheries and Aquaculture," which concludes that as sources from wild capture fisheries approach their maximum take, **aquaculture—or fish farming—will help satisfy the growing global appetite for fish and seafood.** The new World Bank report projects that in 2030, **aquaculture will produce half of the world's supply of fish,** including fish for food and other products such as fishmeal. Meanwhile, 62% of the seafood that will end up on people's plates will come from fish farms, which will grow production to meet rising demand—especially from Asia, where roughly 70% of fish will be consumed. In 2030, an emerging middle class in **China will become a particularly large market for fish.** With increased investment in aquaculture, China will produce 37% of the world's fish and consume 38% of the fish the world eats, the report estimates. The risks and environmental impacts of some aquaculture practices have made headlines in recent years. The disease outbreaks in shrimp aquaculture in China, Thailand and Vietnam and in salmon farming in Chile illustrate some of the industry's challenges. But the **growth of aquaculture also presents countries with the opportunity to expand and improve fish farming so that it is sustainable and environmentally-responsible. By committing to improved aquaculture practices, countries can deliver nutritious fish to more people while being mindful of environmental impact.**

China key to solve aquaculture – highest motive and expertise

F.A.O., 2010', the Food and Agriculture Organization of the United Nations is a branch of the U.N. that seeks to eliminate poverty and increase the global usage of renewable resources, "REGIONAL REVIEW ON STATUS AND TRENDS IN AQUACULTURE DEVELOPMENT IN ASIA-PACIFIC," <http://www.fao.org/docrep/014/i2311e/i2311e.pdf>

The Asia-Pacific region contributes the major share to global food fish supply from farming. China continues to be the biggest producer. It and seven other countries in the region (India, Indonesia, Thailand, Viet Nam, Bangladesh, the Philippines and Myanmar) are in the top-ten ranked aquaculture producers in volume and value. **The region has a high rate of food fish consumption, estimated at 29 kg per person per year. To maintain this level for the next three decades would require producing an additional 30 to 40 million tonnes of fish per year by 2050 to meet the demand from a growing population.** It has demonstrated the capacity to do so; during this decade many of the countries have produced more food fish from aquaculture than from capture fisheries, and all six countries (China, India, Indonesia, Thailand, Viet Nam and Bangladesh) that have attained a production level of more than one million tonnes a year are in the region.

Globally, the top-ten aquaculture producers by quantity (excluding aquatic plants) in 2008 **were China**, India, Viet Nam, Indonesia, Thailand, Bangladesh, Norway, Chile, Philippines and Japan; Asian states hold the top six positions. By value, the top-ten producers were China, India, Viet Nam, Chile, Norway, Japan, Indonesia, Thailand, Bangladesh and the Philippines (Table 2). The growth rate of aquaculture production in the region remained very strong at 11.4 percent between 2006 and 2008 (Figure 8). This growth used to result mainly from the continuously increasing production of China. However, the growth rate of Asia-Pacific (without China) overtook that of China during 2006–2008, 16.1 percent compared to 9.4 percent. Asia-Pacific produced 2.9 million tonnes. By tonnage, the countries that have shown the largest increases include Viet Nam (49 percent), Indonesia (31 percent), India (9 percent), Philippines (19 percent), Bangladesh (13 percent), Myanmar (17 percent) and Malaysia (44 percent). **China produced 43 million tonnes in 2008 (including aquatic plants), representing 63 percent of world aquaculture production. Although China's production is still increasing, its world market share decreased slightly from 67 percent in 2004 to 65 percent in 2006.**

Mechanism – Methane Hydrates

China's best at methane hydrate drilling – research and massive motive now

Zhang 13

[Linyi, is an author who recently graduated from Northwestern University's Medill School of Journalism with a Master's degree, is reporting this summer from Circle of Blue's news desk in Traverse City, Michigan, "Deep Sea Gas: China Follows Japan in Pursuit of New Energy Source," September 6th, Circle of Blue, <http://www.circleofblue.org/waternews/2013/world/china-follows-japan-pursuit-deep-sea-gas/> #KRUGER]

Not to be outdone by their neighbors and rivals from Japan, Chinese scientists this summer have set out to find a potentially vast new source of cleaner-burning fossil fuels, located beneath the floor of the South China Sea. Surging Demand and Reliance on Foreign Energy China's domestic market for natural gas is soaring.

Demand for natural gas in China surged to 130 billion cubic meters (4,590 billion cubic feet) in 2011, which is four times higher than in 2000, according to IEA's 2012

China gas report. **Currently, about one-quarter of the nation's natural gas supply is imported.** But China's 12th Five-Year Plan, introduced in 2011, projects an increase to 35 percent of China's gas that will be coming from beyond its borders by 2015. It should come as no surprise, then, that more than a dozen cities on China's Pacific coast are now building new terminals to receive liquid natural gas imports from nations in the Middle East and other regions. **The exploration comes five months after Japan announced in March that it had extracted**

natural gas from a new source of energy — methane hydrate, a type of natural gas that is trapped in an ice shield and forms when methane and water combine at high pressure and low temperature — from the deepwater seabeds in the Pacific Ocean, off Aichi Prefecture. Japan has since announced that it found more than 200 other sources of methane hydrate in the seabeds surrounding the island nation. Methane hydrate reserves have the potential to contain more energy than any other fossil fuel, according to the U.S. Geological Survey and a 2011 study by the Massachusetts Institute of Technology (MIT). Just one cubic meter of pure methane hydrate can be depressurized and warmed to produce 164 cubic meters at room temperature and ambient pressure. Scientists estimate that 99 percent of methane hydrate reserves exist at water depths ranging from 300 meters (984 feet) to more than 4,000 meters (13,123 feet), depths that encompass much of the planet. The methane hydrates are then buried an additional 50 to 250 meters (165 to 805 feet) below the ocean floor. With 32,000 kilometers (19,884 miles) of ocean shoreline, **China is hoping to find its own stockpile of underwater**

methane hydrate reserves. Some **Chinese experts have even compared the energy potential of methane hydrate reserves in the South China Sea to that in Daqing** — China's largest oil field, discovered in 1959 — which produced 293

million barrels of oil in 2012. That is 50 million barrels more than the shale boom of North Dakota produced in 2012, according to U.S. Energy Information Administration. Still, though the potential energy reserve is high, some energy authorities are not sure that methane hydrate can be a game changer for China, especially when commercial production appears so far away. "The recent Japan pilot — which indeed was successful — is for a particular geologic setting and hydrate play. And, even there, it is unclear whether production could be sustained at high rates and for long periods of time," said Ruben Juanes, associate professor in energy studies at MIT, during an interview with Circle of Blue. "It is unclear that hydrate production can be commercial in the short and medium term, especially in light of the recent shale gas development. It is not easy for me to see when hydrate could play a big role in the energy mix." Unconventional Gas

Markets **Deteriorating air quality and rising carbon emissions are driving China's urgent shift from coal**

combustion, which currently makes up 70 percent of the nation's energy consumption. China's clean

energy sector is the world's largest, due to increases in power generation from wind and water over the last decade. **Likewise,**

demand for cleaner-burning natural gas in China has experienced a four-fold increase over the past

decade. But the Chinese have been less competent in developing reserves of unconventional natural gas, specifically coal bed methane and deep shale gas.

Technology challenges and water scarcity have been barriers to bringing gas to market, despite a national push to explore every possible source and boost the production and use of natural gas. For instance, local officials resist unlocking shale gas — large supplies may exist in northern, southwestern, and western China — unless hydraulic fracturing (fracking) technology can be improved. As it stands now, each well uses approximately 11,000 to 19,000 cubic meters (3 million to 5 million gallons) of water per frack. The process of tapping deep seabed methane hydrate by depressurization, meanwhile, does not involve water use at all. On the contrary, it produces water with no salts, which some models suggest could be an important commodity — either for energy production or human consumption, depending on quantities produced — according to Tim Collett, a research geologist at the United States Geological Survey (USGS) who studies gas hydrates. However, the technology for extracting commercial quantities of gas at reasonable costs is far from being perfected, especially because dissociated, depressurized methane hydrates tend to reform if temperatures drop and pressures increase. "We don't have a good handle on production rates, and production rates are directly tied to the amount of produced water," Collett told Circle of Blue, noting that the longest hydrate production tests last only 10 to 20 days, whereas

production data for other unconventional fuels has generally taken over a year. **Hydrates are primarily a research topic right now,**

but an interesting one. The Wall Street Journal reported that the estimated cost of tapping methane hydrate ranges from \$US 1,059 to \$US 2,100 per 1,000 cubic meters (\$US 30 to \$US 60 per 1,000 cubic feet), which is 10 to 20 times as high as natural gas produced from deep shales in the United States and double to quadruple the imported liquid natural gas (LNG) market price in China during July.

Mechanism – MH 370

China's best for 370 search – giant commitment now and HUGE motive to succeed Jianfeng 4/12

[Zhang is editor for CCTV News, "Chinese President vows enhanced cooperation with Australia on MH370 Search, "4/12/14, CCTV News, <http://english.cntv.cn/2014/04/12/ARTI1397286442822737.shtml> #KRUGER]

Chinese President Xi Jinping met with visiting Australian Prime Minister **Tony Abbott** Friday afternoon at the Great Hall of the People in downtown Beijing. **Xi expressed gratitude for Australia's search for the missing Malaysia Airlines**

Flight MH370, adding that China will continue searching for the flight and stay in close

communication with the Australian side

. Abbott also expressed gratitude for the immediate assistance that China provided for Australia when the search for MH370 shifted from the northern corridor to the southern corridor in Australia. **"China was the very**

first country to provide ships for the search, and we've been very grateful for the help, " he said. At a

luncheon in Shanghai today, Abbott said he was confident that the signals picked up in the search were from the black box of the missing plane. The plane disappeared on March 8 en route from Kuala Lumpur to Beijing with 239 people on board. The flight recorder could help solve the mystery of why the plane veered so far off course. The battery of the black box usually lasts for only a month and is expected to die very soon. During the meeting, Xi said Abbott's leadership of such a delegation to China showed the great importance and sincerity that the Australian side has attached to developing bilateral ties. Both important countries in the Asia-Pacific Region, **China and Australia share broad**

and important common interests and have huge potential for cooperation, said Xi. **He said China is**

willing to work with Australia to push forward their strategic partnership and maintain close high-

level exchanges and multi-level dialogues so as to increase political mutual trust. **The president called**

on the two sides to speed up negotiations on a bilateral free trade deal, and hoped that Australia could offer good conditions for investment by Chinese enterprises in Australia. The two sides should boost exchanges and cooperation in the areas of military, combating transnational crime, and culture, and strengthen coordination and cooperation, he said. He also called for joint efforts in coping with global challenges, such as climate change and cyber security. Noting that China and Australia will host the summit of Asia-Pacific Economic Cooperation (APEC) in Beijing and the G20 Leaders Summit this year, respectively, Xi said the two sides should support each other in order to ensure positive results from the two meetings. Abbott said that China's development is an opportunity for Australia, the region and the world, and Australia is willing to be China's reliable partner in long-term cooperation. Abbott said he made the China visit a priority for his Northeast Asia visit, which aims to enhance bilateral strategic partnership and safeguard peace and stability in the Asia-Pacific region. **Australia is ready to work with China to accelerate talks for a free trade deal and welcomes Chinese enterprises to invest in Australia**, he said. He said **he hopes the two countries will beef up cooperation in the areas of finance, education, science and technology, culture and tourism, and jointly promote people-to-people exchanges**. He welcomed Xi to attend the G20 Leaders Summit and visit Australia. He also expects to participate in the APEC summit in Beijing in November. Before arriving in Beijing, Abbott attended the opening ceremony of the Boao Forum for Asia (BFA) Annual Conference 2014 in south China's Hainan province and visited China's financial hub of Shanghai.

Mechanism – Mining

China's perfect for deep sea metallurgical mining – have the motive because of resource crunch and means given recent efforts

Economic Times 14

{“China Speeds up Indian Ocean Exploration for Minerals,” Xinhua News Agency via the Economic Times, 2/26, http://articles.economictimes.indiatimes.com/2014-02-26/news/47705593_1_polymetallic-sulphide-ore-deposit-international-seabed-authority-state-oceanic-administration}

China has **said its research vessel surveying polymetallic deposits in the Indian Ocean has discovered** two **hydrothermal** and four hydrothermal **anomaly areas as the resource-hungry country stepped up efforts to extract minerals from the seabed.** China's State Oceanic Administration (**SOA**) **hailed achievements** by Chinese scientists. The SOA said that **scientists** onboard the "Dayang-1" research vessel **discovered** two seafloor hydrothermal areas and four hydrothermal anomaly areas, and **deepened understanding about the overall area. They also gained insight on the origins of carbonate hydrothermal areas, and made successful attempts to explore for sulfide**, state-run Xinhua news agency quoted the SOA as saying. **Hydrothermal sulfide is a kind of seabed deposit containing copper, zinc and precious metals such as gold and silver.** **Firming up its foothold** in India's backyard, **China** **has gained approval** in 2012 **to explore a 10,000 sq km polymetallic sulphide ore deposit in an international seabed region of the southwest Indian Ocean. The 15-year approval was secured by China from the** International Seabed Authority (**ISA**). **China's booming economy has forced it to look for minerals abroad. China also has obtained exclusive rights to prospect** in a 75,000-square-km polymetallic nodule ore deposit in the east Pacific Ocean in 2001.

Mechanism – Offshore Wind

China empirically solves offshore wind best – US piecemeal structure comparatively results in failure

Conathan 11

[Michael, is the Director of Ocean Policy at American Progress. His work focuses on driving progressive solutions to the multitude of problems facing the world's oceans. Prior to joining American Progress, Mike spent five years staffing the Senate Committee on Commerce, Science, and Transportation's Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard—initially serving a one-year appointment as a Dean John Knauss Marine Policy Fellow before joining the committee full-time as a professional staff member in 2007,"National Ocean Policy: A Path to America's Ocean Future ,"October 26, 2011,Center for American Progress Action Fund, <http://www.americanprogressaction.org/issues/green/report/2011/10/26/10451/national-ocean-policy-a-path-to-americas-ocean-future/> #KRUGER]

A June 2011 report by the nonpartisan **Joint Ocean Commission, comprised of members of both the** Pew and **U.S. Ocean Commissions,** expressed strong ongoing support for comprehensive ocean planning and the National Ocean Policy, **stating, “the current sector-by-sector management system is incapable of providing the integrated, comprehensive, and flexible approach needed to ensure that conflicts among proposed uses are minimized and potential benefits enhanced.”**

In fact, strategic planning maximizes organizational efficiency and use of taxpayer dollars. Contrary to the false depiction of the National Ocean Policy as excessive government regulation, it will bring all interested parties to the table before key management decisions are made. This will improve opportunities for industry, communities, nongovernmental organizations, and citizens to participate in the planning process and facilitate sustainable economic growth by providing transparency and predictability for economic investments. The alternative is allowing developers of individual projects to drive the regulatory process without adequate guidance from regulators or input from alternate stakeholders, a process that has been shown to lead to a seemingly endless string of lawsuits, political quagmires, and a poisonous investment climate.

There is no better example of the inefficiencies inherent in the piecemeal system than the offshore wind industry. Offshore wind is a viable and rapidly growing piece of the energy picture

in other parts of the world. Today European countries have installed nearly 3,000 megawatts of offshore wind facilities, and

Europe and China combined have permitted more than 40,000

megawatts of wind turbines in their oceans. The U

nited States

has permitted exactly 488 megawatts,

and we have yet to break ground on our first turbine.

Mechanism – Oil Drilling

China is a worldwide power in oil – best service, supply chain and equipment

Zhu and Callas 4/15

[Charlie Zhu is Chief Correspondent, Asia Energy Companies for Reuters, Andrew is an EMEA desk head at Reuters, "China Inc joins the big league in oil and gas services, "February 15th, 2014, Reuters, <http://www.reuters.com/article/2014/04/14/china-oil-equipment-idUSL3N0N00F920140414> #KRUGER]

Global oil companies are increasingly turning to China for services and equipment, attracted by lower costs and a newly acquired expertise **that is challenging more established rivals.** **State-run and privately controlled Chinese rig makers, oil and gas services and engineering firms are showing up in the supply chain everywhere from the Middle East, the North Sea and North America** to frontier areas like Mozambique. **Chinese yards, having come from nowhere in less than a decade, are building more** jack-up **rigs** - the most common offshore rig used for shallow water drilling **- than all the other yards in the world put together,** data from industry consultants IHS Petrodata shows. **Helped by strong government support,** plentiful labour and an abundant supply of raw materials like steel, **China could become a major offshore oil equipment manufacturing hub in less than 10 years,** industry executives say, just like Singapore and South Korea overtook the United States and Europe in the 1990s. **"The Chinese provide products with better value,"** said Scott Darling, Hong-Kong based head of Asia oil and gas research at JPMorgan, which hosted an investor tour of the Middle East last month to study the competitiveness of Chinese energy equipment and services suppliers. **"And they are experts in managing supply chains, thanks to their domestic experiences."** **The rise of Chinese energy equipment manufacturers and services firms overseas, partly fuelled by the rapid expansion of state energy giants, is putting pressure on established companies** including Singapore oil rig makers Keppel Corp and Sembcorp Marine, and land drilling giant National-Oilwell Varco Inc (NOV). To stay ahead, both Keppel and Sembcorp are increasingly building more sophisticated equipment, an area where Chinese firms still lack expertise. Leading the Chinese overseas expansion are state-controlled shipyards and units of state giants China National Petroleum Corp (CNPC), parent of PetroChina, Sinopec Group and China National Offshore Oil Corp (CNOOC). Chinese companies won over half the global orders for jackup rigs last year, up from around a third between 2008 and 2012, data from IHS Petrodata showed. In the area of land drilling equipment, a number of privately run companies have emerged as major overseas players. These include Honghua Group Ltd, the second-largest land rig manufacturer globally with 80 percent of revenue driven by overseas orders, and Hilong Holding Ltd, which started its overseas foray in 2005 and is now the world's second-largest drill pipe maker after Houston-based NOV. "Drill pipes are crucial to oil producers. Previously their drilling schedules were sort of dictated by just one company, NOV," Amy Zhang, Hilong's chief strategy officer, told Reuters. "Now clients have more options. We filled in the gaps." **CRUDE AND CLUNKY Manufacturing energy equipment is an expensive, labour-intensive and lengthy process, and with global energy firms trying to cut costs, the affordability of the services offered by Chinese firms has trumped their relative lack of experience.** Exxon Mobil Corp, Total SA, BP PLC and Royal Dutch Shell have all pledged to cap spending due to pressure from their shareholders, who want more generous payouts before cyclical oil prices start heading lower. China's oil and petrochemical equipment exports were averaging at around \$18 billion a year in the past few years, equivalent to the annual capital spending budget of a mid-sized international oil company, industry data showed. Shell is currently the biggest buyer of equipment and services from China among its foreign rivals. Its China procurement jumped to \$3 billion last year from \$1.9 billion in 2012 and \$1 billion a year earlier, Shell China spokesman Jiangtao Shi said, adding that one third of its 2013 China procurement was earmarked for projects outside China. Lower costs appear to be one of the main attractions. COSCO Corp, China State Shipbuilding Corp, China Shipbuilding Industry Corp, Yantai CIMC Raffles and Offshore Oil Engineering Corp can build a jack-up rig for \$170-180 million, significantly lower than the \$200-220 million price tag for the same rig built in Singapore. Chinese manufacturers can also make land rigs, drilling pipes, bits, modules, pumps and valves at up to half the price of the same equipment made elsewhere. Prices are so competitive that the United States in 2012 slapped hefty anti-dumping duties on imports of Chinese seamless steel pipes, including pipes used for oil and gas drilling. **"We export a lot of petroleum and petrochemical gears. Most of them are crude and clunky stuff but we make money from them,"** Zhang Kang, senior consultant at Sinopec, told Reuters. "We also try to make more sophisticated equipment."

Mechanism – Renewables

China's leading renewables development now – 5 year plan set the tone

CCICED Committee, 2011, China Council for International Cooperation on Energy and Development,

“CCICED 2011 Annual General Meeting,”

http://www.cciced.net/encciced/event/AGM_1/2011agm/proceedings/201205/P020120524364301295038.pdf

Green development has become a trend of times. A new round of industrial and scientific and technological innovation is under sprout and multiplying. We will push forward the multi energy clean development, improve the utilization of efficiency of energy resources and reduce resources consumption to the greatest extent. We will plan, build and reconstruct different industrial parks according to the requirement of circular economy, and establish the industrial system by the recycling chain. **We will also complete the resources recycling system, and promote the utilization of renewable resources in large scale.** We encourage the use of green products, carrying out green shopping, living in green style and green consumption. **Developing a circular economy will not only save resources and reduce pollution from the source, but also play a role in “green development”, as is stated in the “12th Five-Year Plan”.** In line with principles of reduction, reuse and recycling, we should give priority to reduction, aiming to improve resource efficiency. We need to promote the development of a recycling economy throughout production, circulation and consumption. Moreover, we should accelerate the construction of a resource recycling system for the whole society. **We also need step up the implementation of cleaner production** in agriculture, industry, construction, business services and other key areas, **and bring pollutants and emissions under control from the source throughout the entire process,** while reducing resource consumption. We need a sound resource recycling system for renewables, establish and improve systems of classified garbage recovery, sealed shipping, and central treatment. **We should promote green consumption patterns and lifestyle, advocating a civilized, economical, and green low-carbon consumption concept in the whole society.** We should put green government procurement into practice, and gradually raise the proportions of energy-saving and water-saving products as well as recycled products; **strengthen policy support such as fiscal and financial policies, technical support, and planning guidance; improve laws, regulations and standards; establish the system of extended producer responsibility; develop technologies and product catalogues regarding circular economy; and establish a renewable product identification system and a sound statistics and assessment system for circular economy.**

They're feasible, cheap, and desired now – China's perfect

WWF, 2 – 19 – 14, The WWF is an international wildlife conservation that promotes reduction of pollution, “Groundbreaking analysis shows China's renewable energy future within reach,”

<http://wwf.panda.org/?216412/China-renewables-report>

By embracing conservation measures and **renewable energy, China can transition to an 80 percent renewable electric power system by 2050** at far less cost than continuing to rely on coal, according to a new report from WWF-US. **As a result, China's carbon emissions** from power generation **could be 90 percent less than currently projected levels** in 2050 **without compromising the reliability of the electric grid or slowing economic growth.** The China's Future Generation report was prepared by the

Energy Transition Research Institute (Entri) for WWF and **uses robust computer modeling to simulate four scenarios based on today's proven technology**: a Baseline, High Efficiency, High Renewables, and Low-Carbon Mix scenario. To develop its findings, Entri examines China's electricity supply and demand on an hour-by-hour basis through 2050 using its advanced China Grid Model. **"By fully embracing energy conservation, efficiency and renewables, China has the potential to demonstrate to the world that economic growth is possible while sharply reducing the emissions** that drive unhealthy air pollution and climate change," said WWF's China Climate and Energy Program Director Lunyan Lu. **"This research shows that with strong political will, China can prosper while eliminating coal from its power mix within the next 30 years."** In addition to ramping up development of renewable power sources, the world's most populous and energy-hungry nation will need to simultaneously pursue aggressive energy efficiency initiatives to reduce electricity demand. These efficiencies, including bold standards for appliances and industrial equipment, can reduce annual power consumption in 2050 by almost half, which would set the gold standard for these products globally and make the shift to a renewables-based power system possible. **"This research allows Chinese leaders to put the questions of technical feasibility aside and economic viability aside. Instead, it is time to focus on how to enact the right policies and establish the right institutions** to ensure that China's citizens and economy are receiving clean, renewable electricity," said Lu. **"The report shows that today's technology can get China within striking distance** of WWF's vision of a future powered **solely by renewable energy."** The analysis also describes recent Chinese regulatory efforts and challenges to increasing the percentage of renewable electricity in the country, **while providing a set of targeted recommendations for Chinese leaders** and policy makers **on energy efficiency, prioritizing low-carbon electricity supply investments,** allowing price changes to reflect the true cost of service, and prioritizing collection and analysis of key power usage data. **"Both China and the United States are at a crossroads where leaders need to choose** between a future where healthy communities are powered by clean, renewable energy or a future darkened by air pollution and the dangerous effects of climate change," said Lou Leonard, WWF's US vice president for climate change. **"This year, as all countries develop new national climate targets** in advance of talks in Paris, **our leaders need to choose that brighter future.** For Chinese leaders the choice is simple. This report shows that **renewables are doable.** China **can meet bold new targets with today's technologies while cutting energy costs."**

Resolution – Development

China's best – huge push for development now

Xinhua 14 ["Xi advocates efforts to boost China's maritime power", Xinhuanet, 7/31/14, http://news.xinhuanet.com/english/china/2013-07/31/c_132591246.htm]BZhu

BEIJING, July 31 (Xinhua) -- **President Xi Jinping has championed efforts to build China into a maritime power, adding that the country will pursue "converging interests" with other countries in oceanic development.** At a study session with members of the Political Bureau of the Communist Party of China (CPC) Central Committee on Tuesday, Xi called for efforts to learn more about and further manage maritime development. **China will safeguard its maritime rights and interests, and make overall plans and take all factors into consideration,** he said. Xi said China will adhere to the path of peaceful development, but "in no way will the country abandon its legitimate rights and interests, nor will it give up its core national interests." The president said **China will "use peaceful means** and negotiations to **settle disputes and strive to safeguard peace and stability."** Meanwhile, he stressed that **China will prepare to cope with complexities, enhance its capacity in safeguarding maritime rights and interests, and resolutely safeguard its maritime rights and interests.** The country will adhere to the policy of "shelving disputes and carrying out joint development" for areas over which China owns sovereign rights, while also promoting mutually beneficial and friendly cooperation and seeking and expanding common converging interests with other countries, Xi said. In the 21st century, **oceans and seas have an increasingly important role to play in a country's economic development and opening up to the outside world, he said. Their status has become more prominent in regards to safeguarding state sovereignty, national security and development interests, as well as the advancement of a country's ecological civilization. The oceans and seas have an increasingly important strategic status concerning global competition in the spheres of politics, economic development, military, and technology, he said. The key report to the 18th National Congress of the CPC held last November outlined the "maritime power" strategy, calling for enhanced capacity for exploiting marine resources, protecting the marine environment and safeguarding China's maritime rights and interests. At the study session, Xi underscored efforts to make marine industries a pillar of China's national economy. Relevant parties should improve the capability and enlarge the fields for exploiting marine resources so as to "cultivate the marine economy into a new growth point of the country," he said. Xi also emphasized the "sustainable exploitation of marine resources," saying that exploitation and protection, as well as pollution control and ecological remediation, should all be taken into account. "All-out efforts should be made to curb the trend of the deterioration of the marine ecological environment," Xi said. "(The authorities) should be resolute in taking measures to achieve remarkable improvement in the marine ecological environment and ensure safe seafood, blue seas and skies, and clean beaches for the public," he said. Pollutants from land-based sources should be effectively controlled and the establishment of an ecological compensation mechanism should be accelerated, according to Xi. China should forcefully develop high-end and advanced oceanic technologies in order to build China into a maritime power,** Xi noted. He urged relevant authorities to make breakthroughs in major fields like deep water, green and oceanic safety technologies and promote research and development of core technologies and key generic technologies that are essential for marine economic restructuring. "China's maritime cause has generally entered the best period of development after years of efforts," said the president. Xi said China must strive for unified development in the ocean and on land as well as seek a harmonious human-ocean relationship during the development. **China will depend on the ocean to prosper and will steadily promote the building of its maritime power through peaceful and mutually beneficial cooperation, he said.** Zeng Hengyi, deputy chief engineer of the China National Offshore Oil Corp., and Gao Zhiguo, a researcher with the China Institute for Marine Affairs under the State Oceanic Administration, made representations and put forward their suggestions regarding maritime power at the session.

China leads ocean development

Rui **Zhao**, associate research fellow, "The Role of Ocean Industry in the Chinese National Economy: An Input-Output Analysis" May **2013**, Ocean Economy Department

National Marine Data and Information Service: Tianjin, China.
[/www.miis.edu/media/view/32499/original/zhao]

The 21st century is the century of ocean and blue civilization. Economic **globalization is accelerating to push inland economies to move toward the ocean economy.** **2 Exploration and protection of ocean resources play an important role** in sustainable development, **especially in China** who has a vast sea territory. Since China adopted the policy of “reform and opening” in 1978, **China has witnessed the rapid development of marine resources, especially in the recent decade. China’s marine economy has maintained a higher growth rate than that of the national economy during the same period,** yet it still has certain disparities with the global marine economy. As mentioned above, **a new era of the ocean economy in China has started;** **the ocean economy will increase greatly in the near future.**

According to the 2011 statistical bulletin of China’s Ocean Economy, the Ocean economy in China accounts for no more than 10 percent of China’s gross domestic product (GDP), and it is mainly centered on traditional industries such as fishing, transport and tourism. Emerging industries, including marine-related biomedicine, power, chemicals and seawater utilization, only account for five percent of marine output. Therefore, in this research, I will focus on traditional industries including the ocean transport industry, coastal tourism industry, shipbuilding industry and marine fishery industry [15]. **According to the China marine statistical yearbook 2011, major marine industries’ effects on value added of the national marine economy in 2010 reached 1618.78 billion Yuan, up 17.4% from** the previous year (unless otherwise specified, the growth rate is calculated in the comparable price). The coastal tourism and marine communications and transportation industry **still played a dominant role** [16].

Resolution – Exploration

China should lead ocean exploration – Jiaolong tech is world class, leading commitment/will, private sector support

Yuanqing 14

{Sun, syndicated columnist on Chinese governmental policy, “China Takes Lead In Underwater Exploration,” China Daily: Asia, 7/3, http://www.chinadailyasia.com/lifestyle/2014-07/03/content_15146050.html#THUR}

The Jiaolong submersible won the 2014 Hans Hass Fifty Fathoms Award in Sanya, Hainan province, in June. The award is jointly given by the Historical Diving Society Hans Hass Award Committee and Swiss watchmaker Blancpain. **The submersible, independently developed in China, reached** as deep as **7,062 meters** **in the Mariana Trench** in the western Pacific Ocean in 2012, **setting a new record** among Chinese divers. The committee initiated a double prize for Cui Weicheng, deputy chief designer of Jiaolong, for his individual achievements, and the State Oceanic Administration for its support in building the submersible. The award has been honoring individuals for excellence in underwater science and technology since 2003. Previous recipients include renowned film director and diving pioneer James Cameron and Stan Waterman, pioneering underwater film producer and photographer. This is the first time a Chinese project has won the award. **"Today, it is China that is leading the world in its commitment to manned deep ocean exploration,"** says Krov Menuhin, chairman of the award committee and **advisory board member at the Historical Diving Society, an international non-profit organization that studies man's underwater activities and promotes public awareness of the ocean.** **"And the far-sighted vision, the courage and the immense engagement to implement this program is in keeping with the pioneering spirit of Hans Hass. He entered the ocean with the same vision, courage and commitment," he says.** The winners received a framed cast bronze plaque, with an image of Hans Hass, designed by ocean artist Wyland. And Blancpain presented them Fifty Fathoms Bathyscaphe diving watches with specially engraved cases. The brand will serve as the official time keeper for Jiaolong's future underwater expeditions. It also announced a collaboration with the State Oceanic Administration to launch projects to raise public consciousness of the ocean in China in the coming years. The details are still being discussed. **"We are very impressed with Jiaolong with its ability to constantly dive into new depths,** especially its crew, whose courage, focus and action enabled them to reach new frontiers all the time," says Marc Junod, vice-president and head of sales at Blancpain. **The research and development of Jiaolong basically started from zero** in 2002. **None of the crew members had seen, let alone been in, a virtual submersible before.** Fu Wentao, one of the oceanauts of Jiaolong, shared his experience underwater, including encounters with curious creatures. "Unlike the terrestrial creatures, those under the water are not cautious at all. They are actually very curious and will even swim toward us," Fu says. **Cui is planning to launch a project to develop a submersible that will be able to dive as deep as 11,000 meters with financial support from both the government and the private sector.** **"The combination will fuel faster development in underwater science,"** Cui says. **"The sea is vast and rich, but we have a lot of research to do** before we can exploit it."

AT Perm—Do Both

They say “permutation do both” – this still links to all of our disadvantages to USFG action - <insert specific explanation of that>

No permutation --- China won't follow the US interests, “Do both” creates the conflict

Cropsey 11-25-13 [Seth Cropsey is a Senior Fellow at Hudson Institute. He served as a naval officer from 1985 to 2004 and as undersecretary of the Navy in the Reagan and George H. W. Bush administrations, “America Has No Military Strategy for China,” http://www.realcleardefense.com/articles/2013/11/25/america_has_no_military_strategy_for_china_106978.html]

A miscalculation that drew fire has the potential to enmesh us in a dispute that serves no one's interest. An escalation of such a dispute would be disastrous. Yet the U.S. has no strategy for a conflict with China. The sole U.S. preparation for such an outcome is a set of ideas known as the AirSea Battle, (ASB). The ASB is a concept that has taken root in the U.S. Defense Department as the Obama administration talks about rebalancing forces from the Middle East to Asia, and as the American high command gradually accepts the possibility that China may be a strategic competitor to the U.S. The idea of ASB—a new approach to coordinating military services' roles in combat, and not a strategy—comes in two parts: to preserve large American forces' ability to bring power to bear by destroying an enemy's command and control infrastructure; and to defeat the defenses that allow the launch of low-cost, proliferating, and increasingly accurate missiles. ASB means to accomplish this by new, almost revolutionary, cross-Service combinations of command, control, communications, computers, intelligence, surveillance and reconnaissance, that are reflected in equally coordinated operations. On October 10th the House Armed Services Committee's Seapower and Projection Forces Subcommittee, chaired by Representative J. Randy Forbes (R-VA) held a public hearing on the Air-Sea Battle concept at which senior admirals and generals from all the military services testified. The discussion between the knowledgeable elected representative and high-level officers was congenial, informed, and—in unanswered questions—alarming. Representative Forbes asked the officers to explain the strategy on which the AirSea Battle concept is based. They couldn't. Forbes noted the challenges to East Asia's stability and America's historic position as a defender of this stability raised by China's growing military power. He observed that these challenges deserve a strategy worthy of the name, and warned against one that is determined by today's weapons or the reduced force that will exist in the future. ¶ Forbes' point is solid. Fleet Admiral Chester Nimitz famously remarked that because “the enemy (at war games played at the Naval War College) was always Japan, and the courses were so thorough...nothing that happened in the Pacific was strange or unexpected” in the war that followed. Nimitz was on target: surprise is part of warfare, and Japan certainly surprised us at the war's beginning. ¶ However, our surprise was strategic readiness. The island-hopping campaign, amphibious warfare, the role of aircraft carriers—all had been anticipated and rehearsed as elements of the strategy to defeat Japan. Even unrestricted submarine warfare, illegal on the day the war started, had been contemplated and quickly became part of an effective interdiction, rollback, and suppression strategy. The strategy and the organizational tools and the force structure and levels necessary to make it work had been envisioned and were under construction when the war began—largely thanks to Congressman Forbes's predecessor Carl Vinson, the “Father of the Two-Ocean Navy.” ¶ China is not an enemy of the U.S. However, its ambition for regional hegemony, increasing armed strength, active effort to deny U.S. forces' access to the Western Pacific, and increasingly troublesome disputes with its neighbors—in several cases, our allies—over territorial claims in the South China Sea all point to substantial difficulties ahead in relations between Washington and Beijing. China's challenges to the rule of law, the global commons, liberal capitalism, and human rights are worth defending, and we need a strategy to do so. Miscalculation, the escalation of what began as a minor incident, and rising Chinese nationalism press the question of potential conflict. Preventing conflict is key: strategy, operational posture, readiness, resilience, and sustainability are its essential elements. We should be prepared, and we are not. Warfare, like life itself, changes constantly. Success requires adaptation. Where adaptation falters consequences follow. In our own Civil War, the industrialized manufacture of repeating weapons, breech-loading naval guns, steam-propulsion, and armor-plating transformed the technology of warfare globally, but not its strategies, operations, or tactics. But not soon enough. Indeed, until virtually the end of World War I, commanders “came on in the same old way,” as Wellington commented on Napoleon's conduct of Waterloo. The machine gunfire of World War I pushed men into defensive trenches from which they emerged to be cut down by the millions. The tank, which protected its operators from enemy fire while simultaneously attacking an enemy, did not appear on the battlefield until late 1916, and not in numbers nor accompanied by tactics to end the carnage. ¶ Today, the expanding accessibility of relatively low-cost and increasingly accurate missiles questions a long-standing assumption of American strategy, that we could bring to bear land and naval power at a great distance from the U.S. in forward and en route sanctuaries, thus exploiting the strategic depth of two

great oceans. If a million dollar missile can incapacitate or sink an aircraft carrier or a large amphibious ship that costs many billions—or destroy a U.S./allied base within missile range—we must either respond or accept the possibility that large parts of our military will become vulnerable or irrelevant, and in the loss of their regional punch grow weak in their usefulness to the nation's position as a global power. ¶ This is where the AirSea Battle comes in. With is anti-access and area denial strategy, China is challenging our strengths on her maritime approaches. ASB's notion of integrating forces especially naval and air capabilities to destroy or otherwise reduce an enemy's ability to keep us out of the area we require for applying power has great merit. But the ASB office devotes itself more to large changes in technical jointness than to crafting a strategy based on what integrated U.S. and allied forces can achieve. ¶ An analogy is useful here. While coordination between an operating surgeon, anesthesiologist, nurses, and post-operative care are essential to surgery, perfecting such coordination offers no guidance about how to perform a difficult surgical procedure, much less what strategy a patient should use to preserve or improve health. ¶ The ideas offered by the ASB, while necessary, are neither based upon, nor do they serve as the basis of, strategy for any region of the world where countries, most notably China, are actively building the command and control, intelligence, reconnaissance, surveillance, and offensive capability to deny the U.S. and its allies access to the seas far off its coast. The ASB office public document does not include the word "China." so, although the U.S. Defense Department acknowledges the challenge of China's anti-access efforts, we have no strategy to defeat it nor does there appear to be a plan to construct one. The U.S. military faces a growing problem in securing the access that would be needed to project power as China's expanding reach threatens our bases or treaty allies in the Western Pacific. The House Armed Services Committee's expressions of concern were bipartisan and serious. The ASB is one of several approaches to managing risk, but by its authors' own admission, it is a concept, not a plan. We have no strategy on which to base the design of weapons or tactics to meet this challenge. We should. A sensible one would be based upon forward defense in a long war; command of the air and seas; close integration of ground forces to dominate the littorals, islands, archipelagoes, and straits; and building and deploying the forces required to assure a potential adversary that taking on the U.S. is a fool's errand.

AT Theory—International Fiat

Counter Interpretation – one international actor with a solvency advocate

It's negative ground – the aff gets the entire topic, and we get everything outside it for counterplans and other arguments – that's fair.

Best policy option – we learn analytic decision-making if we look to other countries as well as the United States.

Real World-organizations like the UN Security Council determine which country should act all the time

Lit Solves infinite regression – there is no evidence saying Swaziland should do the plan, it doesn't exist

China DA – 2NC Extensions

*****Uniqueness Extensions*****

china's looking to the ocean exploration and development as the final frontier for economic growth and geopolitical leadership ---- that's 1nc marlow --- frame this through long-term trends because it's predictive of the overall structure of decision-makers

LACK of us leadership is uniqueness for the DA --- proves a zero-sum nature to the game

CONATHAN 2013 – Director of Ocean Policy at the Center for American Progress (Conathan, Michael, Rockets Top Submarines: Space Exploration Dollars Dwarf Ocean Spending, June 18, 2013, <http://www.americanprogress.org/issues/green/news/2013/06/18/66956/rockets-top-submarines-space-exploration-dollars-dwarf-ocean-spending/>)

"Star Trek" would have us believe that space is the final frontier, but with apologies to the armies of Trekkies, their oracle might be a tad off base. **Though we know little about outer space, we still have plenty of frontiers to explore here on our home planet. And they're losing the race of discovery**

Hollywood giant James Cameron, director of mega-blockbusters such as "Titanic" and "Avatar," brought this message to Capitol Hill last week, along with the single-seat submersible that he used to become the third human to journey to the deepest point of the world's oceans—the Marianas Trench. By contrast, more than 500 people have journeyed into space—including Sen. Bill Nelson (D-FL), who sits on the committee before which Cameron testified—and 12 people have actually set foot on the surface of the moon. All it takes is a quick comparison of the budgets for NASA and the National Oceanic and Atmospheric Administration, or NOAA, to understand why space exploration is outpacing its ocean counterpart by such a wide margin. In fiscal year 2013 NASA's annual exploration budget was roughly \$3.8 billion. That same year, total funding for everything NOAA does—fishery management, weather and climate forecasting, ocean research and management, among many other programs—was about \$5 billion, and NOAA's Office of Exploration and Research received just \$23.7 million. Something is wrong with this picture. Space travel is certainly expensive. But as Cameron proved with his dive that cost approximately \$8 million, deep-sea exploration is pricey as well. And that's not the only similarity between space and ocean travel: Both are dark, cold, and completely inhospitable to human life. Yet **space travel excites Americans' imaginations in a way ocean exploration never has**

To put this in terms Cameron may be familiar with, just think of how stories are told on screens both big and small: Space dominates, with "Star Trek," "Star Wars," "Battlestar Galactica," "Buck Rogers in the 25th Century," and "2001 A Space Odyssey." Then there are B-movies such as "Plan Nine From Outer Space" and everything ever mocked on "Mystery Science Theater 2000." There are even parodies: "Spaceballs," "Galaxy Quest," and "Mars Attacks!" And let's not forget Cameron's own contributions: "Aliens" and "Avatar." When it comes to the ocean, we have "20,000 Leagues Under the Sea," "SpongeBob SquarePants," and Cameron's somewhat lesser-known film "The Abyss." And that's about it. This imbalance in pop culture is illustrative of what plays out in real life. We rejoiced along with the NASA mission-control room when the Mars rover landed on the red planet late last year. One particularly exuberant scientist, known as "Mohawk Guy" for his audacious hairdo, became a minor celebrity and even fielded his share of spontaneous marriage proposals. But when Cameron bottomed out in the Challenger Deep more than 36,000 feet below the surface of the sea, it was met with resounding indifference from all but the dorkiest of ocean nerds such as myself. Part of this incongruity comes from access. No matter where we live, we can go outside on a clear night, look up into the sky, and wonder about what's out there. We're presented with a spectacular vista of stars, planets, meteorites, and even the occasional comet or aurora. We have all been wishing on stars since we were children. Only the lucky few can gaze out at the ocean from their doorstep, and even those who do cannot see all that lies beneath the waves. As a result, the facts about ocean exploration are pretty bleak. Humans have laid eyes on less than 5 percent of the ocean, and we have better maps of the surface of Mars than we do of America's exclusive economic zone—the undersea territory reaching out 200 miles from our shores. Sure, space is sexy. But the oceans are too. To those intrigued by the quest for alien life, consider this: Scientists estimate that we still have not discovered 91 percent of

the species that live in our oceans. And some of them look pretty outlandish. Go ahead and Google the deepsea hatchetfish, frill shark, or Bathynomus giganteus. **In a time of shrinking budgets and increased scrutiny on the return for our investments, we should be taking a long, hard look at how we are prioritizing our exploration dollars**

If the goal of government spending is to spur growth in the private sector, entrepreneurs are far more likely to find inspiration down in the depths of the ocean than up in the heavens. The ocean already provides us with about half the oxygen we breathe, our single largest source of protein, a wealth of mineral resources, key ingredients for pharmaceuticals, and marine biotechnology. Of course space exploration does have benefits beyond the "cool factor" of putting people on the moon and astronaut-bards playing David Bowie covers in space. Inventions created to facilitate space travel have become ubiquitous in our lives—cell-phone cameras, scratch-resistant lenses, and water-filtration systems, just to name a few—and research conducted in outer space has led to breakthroughs here on earth in the technological and medical fields. Yet despite far-fetched plans to mine asteroids for rare metals, the only tangible goods brought back from space to date remain a few piles of moon rocks. The deep seabed is a much more likely source of so-called rare-earth metals than distant asteroids. Earlier this year the United Nations published its first plan for management of mineral resources beneath the high seas that are outside the jurisdiction of any

individual country. **The United States has not been able to participate in negotiations around this policy because we are not among the 185 nations that have ratified the U.N. Convention on the Law of the Sea** which governs

such activity. **With or without the United States on board, the potential for economic development in the most remote places on the planet is vast and about to leap to the next level**

Earlier this year Japan announced that it has discovered a massive supply of rare earth both within its exclusive economic zone and in international waters. This follows reports in 2011 that **China sent at least one exploratory mission**

to the seabed beneath international waters in the Pacific Ocean. There is a real opportunity for our nation to lead in this area but we must invest and join the rest of the world in creating the governance structure for these activities

ocean exploration is the final frontier for countries ---- china wants to win the race

MARLOW 2013 - geobiologist at the California Institute of Technology (Marlow, Jeffrey, Ocean exploration: the deep space age, March 2013, http://vision.ae/en/life/articles/ocean_exploration_the_deep_space_age)

The race is on to discover what lies at the bottom of the world's final undiscovered frontier: its seas. Far from being a pursuit of wealthy celebrities or curious scientists, oceanography has become a key geopolitical consideration, with marine conservation and the securing of resources new priorities for global powers. On 26 March of last year, a large green submersible touched down gently on the sea floor. Plumes of silt billowed across the surface

– which had likely been undisturbed for centuries – while spindly crabs and slithering eels peered out warily at their unusual visitor. On the water's surface, 11,000 metres above the isolated sea craft, the visit to the ocean bottom was creating substantially more attention. After all, the pilot was Hollywood mogul James Cameron, and he had just become the first man to glide solo to the world's deepest point. Cameron may be the most high-profile deep-ocean explorer of recent years, but he's certainly not alone among billionaires in pursuit of glory, adventure and scientific discovery on the sea floor. Virgin Oceanic – funded by Virgin Group founder Sir Richard Branson – is developing a submersible to visit the deepest point in each of the planet's five oceans. Amazon's CEO, Jeff Bezos, used advanced deep-sea sonar instruments to locate the discarded engines of Nasa's Apollo 11 spacecraft, and is planning an expedition to retrieve them from the bottom of the Atlantic Ocean. Eric Schmidt, the Executive Chairman of Google, who is estimated to be worth US\$7bn, is bankrolling the Schmidt Ocean Institute. **The**

ocean's depths – the final unexplored frontier on Earth – are suddenly getting rather crowded.

Exploration resurgence in **China**, the Jiaolong submersible (capable of 7,000-metre dives) **has access to a larger proportion of sea floor than all other manned research vehicles.** Last June, three Chinese oceanauts at the bottom of the Pacific Ocean placed a call to their

countrymen in space, who were piloting their Shenzhou 9 spacecraft through complex docking manoeuvres. **The message was clear: China is investing significant financial and political capital in deep-sea exploration, which fuels the duel fires of national pride and technological advancement in much the same way as its fledgling space**

programme. So why is deep-sea exploration seeing a resurgence? What is so fascinating about the darkness beneath the waves that has billionaires and governments racing to develop new capabilities? Among private oceanographic benefactors, the combination of enhanced submersible technologies and the urge to distinguish themselves from their caviar-slurping, mansion-building, peers have fuelled the race to the bottom. Sylvia Earle, the grande dame of oceanography, has rubbed neoprene-covered elbows with many of the big players through her work as an ocean researcher, ambassador and advocate. "There are some wealthy individuals who are just indulging their fantasies," she says. "But for the most part, they get a thrill out of making a difference, by finding something really important to contribute to, and that makes it much more worthwhile." Victor Zikov is the Director of Science Operations at the Schmidt Ocean Institute, which he believes was founded with the same world-changing intent that characterised Schmidt's tenure as Google's CEO. "One of the reasons Eric and his wife, Wendy, wanted to do this is that changes in the oceans are occurring, and the consequences of those changes are difficult to understand," he explains. **Government-backed**

endeavours have different motivations – from strategic defence interests to resource acquisition to national prestige. **China's deep-sea programme embodies all three**, and while it's a relatively recent participant on the world stage, **oceanographic advancement has been a deliberate, concerted effort for nearly two decades.**

Dean Cheng, a Research Fellow at the Heritage Foundation's Asian Studies Center, points to the 863 plan as the birth of China's scientific ambitions. Initiated in 1986 by four prominent engineers, the programme focuses on investments in science and technology. In its initial configuration, 863 prioritised seven sectors (including biotechnology, space and automation), and marine technology was added to the roster in 1996. Remarkable discoveries To Cheng, **the addition of oceanography to the plan made perfect sense. "China had become more of a maritime power,"** he says, **"and the ocean had become more strategically important as the country's centre of gravity moved**

from inland areas to the coast." The government recently broke ground on the National Deep Sea Center in Qingdao, which will manage an ambitious 50 dives per year, as well as a nuclear-powered deep-sea station that would create a more permanent presence on the sea floor. "This is an opportunity to kill multiple birds with one stone," explains Cheng, "to build prestige, expand economic development, explore underwater canyons that might be useful for transporting a submarine fleet, and provide an impetus for keeping people interested in studying various sciences. It makes **perfect sense for China to invest in oceanographic research, and it has become a major programme."**

*****LINK Extensions*****

china da – link wall 2nc

Chinese businesses know it's zero-sum

HAIQING 2013 – PDO Editor, business and investment. Tao Haiqing, Establish China's Marine Economy Development Systems, November 6, 2013,
http://en.theorychina.org/xsqy_2477/201306/t20130611_270465.shtml

On March 7, 2012, **the State Oceanic Administration** announces that the State Council has **formally approved the National Marine Functional Districts** (2011-2020) **to determine the tone and goals of the development, control and comprehensive management of China's ocean space** in the next 10 years. **At present, 95 percent of China's foreign trade has been completed through sea, with more than 100 million tons of imported oil through sea being imported into this country. Ocean traffic has become China's strategic economic artery.** Meanwhile, China is also an important part of the Pacific Rim Economic Circle. China Sea is a significant part of the North Pacific route via the Pacific Ocean up to five continents. In addition, **its offshore is a vital traffic line between Northeast Asia and Southeast Asia. Sea lanes make China's economy closely link with the world economy.** Statistical data shows that China's 3 million square kilometers of territorial waters contain about 24 billion tons of oil and about 14 trillion cubic meters of natural gas. As an important growth pole in the national economy, China's coastal areas, driven by marine economy, created 60 percent of the gross national product by using of its land area that accounts for 13.4 percent of the country. **Therefore, China should construct its marine economy development system by actively coordinating the exploitation of marine resources** in accordance with people-oriented principle and **with sea as its source.** Establish an integrated management system and break the region separation. **The ocean, a treasure trove of biological resources and a cornucopia of mineral resources, is considered to be the second space of human existence. The coastal countries, such as the United States and Japan, not only raise the ocean economy to the national strategy, but also are equipped with a Ministry-level department to co-ordinate and manage the ocean. In the 12th five-year-plan, China raised marine economy to the national strategy, and clearly states that "promote the development of marine economy, adhere to the land and sea to co-ordinate development, formulate and implement marine economy development strategy, improve marine development, control, and comprehensive management ability.** This indicates that the economic development of China's coastal areas has exceeded its land boundaries, extending to the waters and to enter the co-ordination era of land and sea. But as to the present situation, China's existing marine management system lacks integrated management. The fragmented phenomenon in China's marine economy development is serious, such as the Bohai Bay, with 5800 km coastline and over 60 ports, owning a port on average less than 100 kilometers. Isomorphism causes regional repeat construction and significant waste of resources. Therefore, China should establish Special Coordination Committee in charge of the marine economy at the level of Central Government, intensify and draft the marine economic development plan covering all industries and regions, in order to improve the ability of marine resources exploitation, to break the region separation, so that the development of marine economy in all regions will promote in harmony, forming a new pattern of ocean management. Establish the legal protection system and publish the Basic Law of the Ocean As the world's economic center is now transferring to the Pacific, coastal states have set marine strategies and policies. Canada in 1996, the United States in 2000, and Japan in 2007, issued their National Marine Basic Law to protect its own interests. The United States comprehensive ocean legislation system has been in a leading position in the field of the world's oceans. In 2000, the U.S. Congress passed the Marine Act 2000, set up an ocean policy assessment committee to reconsider and formulate U.S. ocean policy. In 2004, the U.S. National Ocean Policy Committee submitted 21st Century Ocean Blueprint report, which made by far the most thorough assessment of U.S. ocean policy and depicting the new blueprint for the U.S. maritime industry and development in the 21st century. Subsequently, the United States released the U.S. Ocean Action Plan to put forward specific measures to implement the blueprint. Looking back at China, under The United Nations Convention on the Law of the Sea and other relevant laws, China has jurisdiction over more than 3 million square kilometers of ocean. In the Declaration on the Territorial Sea promulgated in 1958, China issued over 80 ocean-related laws and regulations for 50 years, but China still lack the basic principles throughout the entire marine legal system. Overall, China has no one similar to Japan's Basic Law of the Ocean, to the disadvantage of managing national marine affairs and safeguarding national maritime rights and interests. Wang Zhenmin, dean of Tsinghua University Law School, said that the research foundation of the current domestic marine law is weak and the talents are short. The future international competitions, whether on land or sea, will eventually be solved by legal forms. As a maritime country, to really implement marine development strategy, and to change the current sea situation segmented and controlled by many law enforcement forces, and properly handle the intricacies of maritime rights and interests disputes, China must use the Basic Law of the Ocean to manage all the things. It is an urgent task to publish the Basic Law of the Ocean as soon as possible. Establish the science and technology innovation system and seize the commanding point in the marine economy The Marine economy competition is essentially a technologic and talent competition. The Chinese government should increase investment in the marine scientific and technological innovation, establish and perfect a stable growth inputting mechanism in the financial marine science and technology. At the same time, start a project to train marine high-level innovative talent, promote the marine talent strategy. Moreover, it is a top priority of the ocean science and technology innovation to increase the research and development on key technologies of marine economy, capture research projects that has a significant impact on the development of the marine industry. Liu Cigui, director of State Oceanic Administration, believes that marine science and technology dominate the discourse of power and initiative in a new global ocean race, determine the depth and breadth where a country develops and utilizes the marine. Marine science and technology turns to lead and support the scientific development of marine economy and marine cause from the "Eleventh Five-Year" period upholding the development of marine economy and the marine-based, and actively boost the marine ecological civilization construction. In the "12th Five-Year" period, the contribution rate of the marine science and technology on the marine economy will rise by 54.5 percent in the "Eleventh Five-Year" period to 60 percent. **To this end, China should actively develop biotechnology, information technology and regulatory technology to seize the commanding point of marine living resources in the sustainable development; Ocean high-tech industry development should be in priority, through developing ocean high-tech park, technology and the sea demonstration area, as well as marine science and technology business incubators, to nurture marine high-tech leading enterprises; especially, accelerate the high-**

tech industry development in the marine biology medicine, new energy, marine port advanced equipment manufacture, form the marine characteristic industry with the core competitiveness; by 2020, the overall strength of China's marine science and technology will achieve above the average level of developed countries, forming the system of marine science and technology development in line with the needs of the socio-economic development.

china da – link – arctic

the arctic is a key hotspot for the Chinese ---- independently triggers global great power conflict

O’SULLIVAN 4/28/2014 – oil journalist, post-graduate student at NYU’s Center for Global Affairs, International Relations Concentration. O’Sullivan, Cono. “Opinion: Arctic Development Could Ignite Next Great-Game Competition” April 28, 2014. <http://breakingenergy.com/2014/04/28/opinion-arctic-development-could-ignite-next-great-game-competition/>

The development of Arctic energy resources poses the potential for an energy security competition between the Great Powers and Arctic stakeholders that will alter the geopolitical climate

hydrocarbon reserves – 25% of world deposits- available under the melting ice caps, and undiscovered oil and gas **will see states shifting their economic**

and foreign policy priorities **New shipping lanes could alter the world economy as trade routes become faster and safer, but will also become a source of conflict. As world populations and energy consumption increases and supplies decrease, states will seek to maximize interests out of Arctic exploration**

The United States and other Arctic Council members must check the exploration and production ambitions of Russia and China to prevent a great power game developing. A cohesive policy between member states and international institutions will be vital in preventing a resource competition that could have severe economic, political, military and environmental implications. The flag planting by a Russian submarine in August 2007 underneath the Arctic seabed symbolized Russia’s intentions to use Arctic exploration as a means of securing its desired imperial status – pursuing a zero-sum game. The Kremlin plans to establish a new international order in which it becomes a regional hegemon. It is my opinion that Russia intends to end its role as an isolated entity in international affairs, becoming closely integrated with the global economy and dictating policy. Russian officials view the Arctic as securing its energy security ambitions for the next century. Dwindling Russian gas and energy reserves, in the underdeveloped Siberian fields, and over-reliance on European imports of its natural gas has led to a push towards the Arctic. Russia’s jurisdictional claim over the Arctic seabed will challenge the existing international law criteria, the UNCLOS, which specifies jurisdictional authority over international waters. Arctic stakeholders must be wary of Russian intentions over Arctic development, considering the nationalistic rhetoric of the current government in power. Russia’s nationalized energy companies maintain an influence in formulating Arctic Policy and influencing the Russian government to their advantage. Russia will also use its energy security policy in the Arctic to become a naval superpower as new shipping lanes for trade and energy production will run along its extensive northern coastline. Russia’s actions in Crimea and the Ukraine emphasize their willingness to revert to military action over issues of territorial sovereignty and that the U.S. requires an assertive foreign policy with Russia.

Ensuing competition over Arctic energy resources and shipping lanes will increase geopolitical

competition among the Great Powers The Bering Sea provides the U.S. with access to Arctic shipping lanes and can act as a strategic counterbalance to Russia. The U.S. Geological Survey estimates that 13% and 30% of the world’s undiscovered oil and natural gas respectively lies under the Arctic seabed. I believe that Arctic Council members, the Nordic States and Canada, will align with the U.S. to impose

strict restrictions over extraction and production in the Arctic Ocean. International law and conventions can only be implemented if supported by U.S. diplomacy in international institutions. **Domestic and**

multi-national energy companies must continue their innovation in technology to finance exploration in competition with foreign NOCs **Regional competition** with its East Asian neighbors, South Korea and Japan, for energy security **will lead to an assertive foreign policy from China to lead Asian exploration in the Arctic. China’s pursuance of energy resources in the Arctic and use of new shipping lanes along Russia’s coast line will increase tensions between the two states as they strive to become naval superpowers** The Chinese government has maintained that they have no clear agenda regarding its Arctic Policy. However, **China still harbors ambitions of**

becoming a regional hegemon and for energy diversification away from fossil fuels to satisfy its population and production demands China’s application for permanent observer status in the Arctic Council signifies their intention to influence Arctic Policy despite their inferior geographic location. Access to the Arctic shipping lanes will significantly reduce risks and costs for Chinese trade to the West via the Northern Sea Route. The U.S.’s relatively superior military and economic resources and growing energy self-sufficiency means it must implement policies that will satisfy world energy security demands through Arctic development. The United States must use its clout within the Arctic Council to check the imperial ambitions of

Russia and the vast energy demands of China through effective State and Energy Department mandates. In my opinion, an inability to do **this will threaten a return to Cold War**

geopolitics, increasing the risk of energy security competition and Great Power military conflict

china da – link – ocean nasa

EVEN NASA triggers competition between various government leaders, there's no reason why an Ocean NASA would be any different

JOHNSON 2014 – Atimes Contributor (Johnson, Andrew M, "Time ripe for US-China space cooperation", January 14, 2014, <http://www.atimes.com/atimes/China/CHIN-01-140114.html>)

NASA restricted from working with CNSA Appropriation bills originating in the 2011 Continuing Resolution (and NASA's 2012 Fiscal Year appropriation) imposed the following funding restrictions: NASA may not "develop, design, plan, promulgate, implement, or execute a bilateral policy, program, order, or contract of any kind to participate, collaborate, or coordinate, bilaterally in any way with China or any Chinese-owned company unless such activities are specifically authorized [by law]." [4] Initially, **the restrictions** evolved from legitimate concerns about sensitive technology transfer and cyber-security threats. But a strong case has been made that these concerns **are not only outdated, but ineffective and detrimental to the long-term health of the US-China relationship**. What is absent in congressional commentary on "Chinese cyber-threats" is the important distinction between cyber-threats originating from within China's borders - often perpetrated by skilled individuals and private hacking groups - as opposed to cyber-threats directly linked to the Chinese government. Convinced of the latter scenario, **the House Intelligence Committee has been peeking over shoulders far and wide searching for reasons to justify this kind of anti-cooperative legislation**. If cyber-security and sensitive technology were really the issue here, technology-intensive government agencies like Department of Energy and the National Institutes of Health would also be restricted from collaborating with China. To date, NASA is the only major technology-intensive government agency that does not cooperate bilaterally with the Chinese. Furthermore, the private technology contractors which develop most of NASA's hardware (Boeing, Lockheed, etc) do - under certain constraints - collaborate with Chinese talent and customers. Not surprisingly, a key voice opposing the NASA-CNSA restrictions is NASA administrator Charlie Bolden - who has been increasingly forthright in his attempts to convince congress to lift the restrictions. The fact that congress has maintained the restrictions without even considering the case against them by the NASA administrator himself is revealing. **Furthermore, the restrictions undermine the primary rationale for having a space program - to explore ambitiously, expand aggressively, and defend at all costs the single piece of common ground we all share, called Earth**. The real issue is that **a few ill-informed** (but nonetheless influential) **congressional leaders (with blatant anti-Chinese sentiment) have maintained their position on the issue for purely political reasons**. It is clear that American public policy makers must take a new look at working shoulder to shoulder on space-related issues with China.

china da – link – nuclear

alternative energy development triggers market fleeing from china --- key to their overall economic leadership

MCMAHON, 2013 (Tamsin, Diploma in European Journalism from the Hogeschool van Utrecht, B.A. from Ryerson University, reporter for the National Post, “How China is going to save the world”, MacLean’s, January 27, 2013, <http://www2.macleans.ca/2013/01/27/business/>)

Last week the U.S. Embassy in Beijing upgraded its official reading of the city's air quality on Twitter from “hazardous” to merely “very unhealthy.” But that was scant comfort to the millions of Chinese workers who don masks for their daily commute through thick smog into “Greyling.” Recent news that air pollution had reached its highest levels since the American government began monitoring it—roughly 44 times worse than the World Health Organization’s recommended daily levels—had ground the city’s construction industry to a halt, forced schools to cancel outdoor sports activities and even sparked several rare, critical editorials in the state-owned press. “What do we want, breathtaking growth or taking a breath amid choking air?” asked China’s state-run news agency Xinhua. It prompted two Chinese environmental activists to pay for an

ad in the New York Times urging new Communist party chief Xi Jinping to pledge his commitment to the environment. **China’s ongoing struggles with pollution have been a blight on**

the country’s international reputation. The world’s image of China is that of an industrial behemoth fuelled by the dirtiest of energies, coal. On the surface, the reputation is well deserved. No country pumps out as much CO2 as China (not even the U.S. comes close). But behind the smog, China’s environmental woes have become an unexpected boon to the global renewable energy industry. Last week’s air quality emergency sent Chinese green energy stocks soaring on the hope that the political fallout will prompt the Communist party to offer up more public money for the country’s burgeoning environmental protection sector. Investors are counting on it. Even as it remains the scourge of environmentalists for being the largest emitter on the planet, **China is also**

emerging as the world’s biggest spender on green energy. Globally, green energy investment fell 11 per cent last year, according to a recent Bloomberg New Energy Finance report. Indebted European countries slashed subsidies, India cut its spending by more than 40 per cent and the U.S. witnessed a string of solar power manufacturer bankruptcies. **China’s investment in renewable energy,**

meanwhile, was a bright spot. It rose 20 per cent to nearly \$68 billion, or a full quarter of the \$269 billion global total. From having virtually no green energy infrastructure as recently as 2008, China has built 133 gigawatts of renewable energy—mainly wind turbines—enough to power as many as 53 million homes, or every household in Canada four times over. The International Energy Agency predicted that China would overtake Europe as the world’s top renewable energy growth market. It’s a market expected to be worth more than \$470 billion by 2015, according to state-owned China Merchants Securities, or almost double what it was in 2009 and equal to about eight per cent of the country’s GDP. **That investment has caught the eye of clean-tech**

companies in Europe and North America, who are flocking to China in hopes of selling their technologies after seeing demand stagnate or collapse in their home markets. “All the key players are going to

China these days,” says Changhua Wu, Greater China director of the Climate Group, a London-based agency that promotes green energy investment.

“Everyone is trying to figure out what the potential for opportunity is, partly because everyone recognizes that China could potentially be the largest market for clean tech in the world.” As China takes the lead, everyone will benefit from the technology that is developed and exported. China is saving itself, but might also be saving the world in the process. While the Middle Kingdom’s smog problems have earned plenty of headlines, it has also been quietly attracting a host of very unlikely supporters, including praise from the Pew Charitable Trust and the World Wildlife Foundation, which gave its “climate solver” award this year to several Chinese companies that manufacture technology to capture and recycle wasted heat, water and chemical emissions to power everything from factories to refrigerators. Greenpeace predicted the country would be on track to install 400 gigawatts of wind energy by 2030 and could become the largest solar market in the world. The argument that China is the world’s environmental bad guy “is increasingly difficult, if not impossible, to make given China’s recent policies,” wrote the

authors of an October report for the Climate Institute, an Australian think tank. **The country has closed more coal-fired power plants**

since 2006 than the entire capacity of Australia’s electrical grid, **and exported more than \$35-billion worth of renewable energy**

technology—equal to the total value of shoes exported from China that year. This year, China is rolling out pilot projects that could eventually lead to the world’s largest carbon trading system. “The broad scheme of things is that China believes it wants to become a resource-conserving, environmentally friendly society and that’s the way they describe it, in those exact words,” says Arthur Hanson, one of Canada’s leading experts on sustainable development. The former founding director of Dalhousie University’s School for Resource and Environmental Studies, Hanson is in Beijing this week in his role as international chief adviser to

the China Council for International Co-operation on Environment and Development. **Granted, China has little choice but to invest in renewables as it seeks out more sources of energy to help power its rapidly developing economy, with GDP growth** expected just shy of eight per cent this year and an urban population rising by an estimated 2.3 per cent a year. **Green energy is also**

seen as a political tool for the Chinese government that can quell rising environmental protests and appease political dissent. “The leadership in China is really recognizing that in order to manage and govern the country

better you need to find a universal underlying theme to make sure everyone is with you,” says Wu. “Green growth or sustainable development **happens to be the only one**” But **beyond the obvious political and economic advantages**

of green energy, China is also pinning its hopes on the belief that global demand for clean technology will enable the country to transform both its domestic economy and its exports. Until now, China’s green energy sector has

largely done what the country does best: import technology developed elsewhere, reproduce it for less money and then export it back to the West. That's changing as China pours billions into **research and development** and advanced education **in** hopes **that clean tech can help shift China from** being merely **the low-cost factory of the world to** being **a global leader in developing innovative technology**. **China's** current **five-year** plan, which runs through 2015, **includes an economic development blueprint** that will see more than \$1.5 trillion invested in seven industries, all of them related in some way to environmental protection and renewable energy technology

china da – link – oil exploration

oil exploration is perceived as a zero-sum issue

BODEEN 5/8/2014 – AP Contributor (Bodeen, Christopher, Why China is putting an oil rig off Vietnam coast, May 8, 2014, <http://news.yahoo.com/why-china-putting-oil-rig-off-vietnam-coast-120339861.html>)

Q: Why is China doing this? A: **China claims virtually the entire South China Sea and has begun acting on announced plans to drill for what is thought to be a wealth of oil and natural gas beneath those waters. The moves may also be a test of Vietnam's ability and resolve to defend its own claims, along with Washington's insistence on freedom of navigation there.** Q: Where is the rig? A: China has placed its oil rig about 130 nautical miles off Vietnam's coast in waters already identified by Hanoi for exploration but not yet offered to foreign petroleum companies. Vietnam argues the territory is clearly within its continental shelf. China's argument is based on its historic claim to most of the South China Sea and on the rig's proximity to nearby Parcel Islands, which are also disputed. Q: What are the legal arguments? A: **China's move appears to go against the spirit of both U.N. conventions and agreements Beijing has with Southeast Asian nations that call for nations not to unilaterally engage in conduct that escalates disputes or jeopardizes a resolution to competing claims of sovereignty.** The agreements, however, are hazy and unenforceable and **China has ignored past commitments while rejecting calls for international mediation.** Q: What about the timing? A: China said the rig is a routine and logical outgrowth of a long-developing oil exploration program. However, **its deployment follows a visit to the region by President Barack Obama during which he criticized China's moves to back its claims in the South China Sea and reaffirmed U.S. support for ally Japan in another territorial dispute in the East China Sea. Coming on top of U.S. plans to bulk-up its Asian presence, the remarks left China thoroughly displeased.** It also comes ahead of this weekend's summit of the 10-nation Association of Southeast Asian Nations that includes both Vietnam and the Philippines, with whom China is also feuding over maritime claims. Beijing has been accused of meddling in the fragile grouping before, mainly to further its strategy of preventing the bloc from putting up a united front against China's territorial claims. Q: What is China's end game? A: **China's ultimate goal is to displace the United States as the region's dominant military power and draw its neighbors further into its economic and cultural orbit.** Forceful measures to assert its South China Sea claims help build its clout, and there appears little likelihood of China backing away in the face of complaints, much less making concessions on territorial matters.

*****Impact Extentions*****

US – China competition escalates to conflict over Taiwan

Chinese economic downturn sparks Taiwan war.

Lewis 10 (Dan, Research Director of Economic Research Council, "The nightmare of a Chinese economic collapse" World Finance, <http://www.worldfinance.com/news/home/finalbell/article117.html>)

It has been calculated that to **keep China's society stable** – ie to manage the transition from a rural to an urban society without devastating unemployment - **the minimum growth rate is 7.2 percent. Anything less than that and unemployment will rise and the massive shift in population from the country to the cities becomes unsustainable. This is when real discontent with communist party rule becomes vocal** and hard to ignore. It doesn't end there. That will at best bring a global recession. The crucial point is that communist authoritarian states have at least had some success in keeping a lid on ethnic tensions – so far. But when multi-ethnic communist countries fall apart from economic stress and the

implosion of central power, history suggests that they don't become successful democracies overnight. Far from it. **There's a very real chance that China might go the way of Yugoslavia or the Soviet Union – chaos, civil unrest and internecine war.** In the very worst case scenario, **a Chinese government might seek to maintain national cohesion by going to war with Taiwan – whom America is pledged to defend.**

Taiwan war causes extinction.

Straits Times '00 (6-25, Lexis, No one gains in war over Taiwan)

THE DOOMSDAY SCENARIO THE high-intensity scenario **postulates a cross-strait war escalating into a full-scale war between the US and China.** If Washington were to conclude that splitting China would better serve its national interests, then **a full-scale war becomes unavoidable. Conflict** on such a scale **would embroil other countries** far **and** near and -- horror of horrors -- **raise the possibility of a nuclear war.** Beijing has already told the US and Japan privately that it considers any country providing bases and logistics support to any US forces attacking China as belligerent parties open to its retaliation. In the region, this means South Korea, Japan, the Philippines and, to a lesser extent, Singapore. If China were to retaliate, **east Asia will be set on fire.** And the conflagration may not end there as opportunistic powers elsewhere may try to overturn the existing world order. With the US distracted, **Russia may seek to redefine Europe's political landscape.** The balance of power in the Middle East may be similarly upset by the likes of Iraq. In south Asia, **hostilities between India and Pakistan, each armed with its own nuclear arsenal, could enter a new and dangerous phase.** Will a full-scale Sino-US war lead to a nuclear war? According to General Matthew Ridgeway, commander of the US Eighth Army which fought against the Chinese in the Korean War, the US had at the time thought of using nuclear weapons against China to save the US from military defeat. In his book *The Korean War*, a personal account of the military and political aspects of the conflict and its implications on future US foreign policy, Gen Ridgeway said that US was confronted with two choices in Korea -- truce or a broadened war, which could have led to the use of nuclear weapons. If the US had to resort to nuclear weaponry to defeat China long before the latter acquired a similar capability, **there is little hope of winning a war against China** 50 years later, **short of using nuclear weapons.** The US estimates that China possesses about 20 nuclear warheads that can destroy major American cities. Beijing also seems prepared to go for the nuclear option. A Chinese military officer disclosed recently that Beijing was considering a review of its "non first use" principle regarding nuclear weapons. Major-General Pan Zhangqiang, president of the military-funded Institute for Strategic Studies, told a gathering at the Woodrow Wilson International Centre for Scholars in Washington that although the government still abided by that principle, there were strong pressures from the military to drop it. He said military leaders considered the use of nuclear weapons mandatory if the country risked dismemberment as a result of foreign intervention. Gen Ridgeway said that **should that come to pass, we would see the destruction of civilisation.** There would be no victors in such a war. While **the prospect of a nuclear Armageddon over Taiwan** might seem inconceivable, it **cannot be ruled out** entirely, for China puts sovereignty above everything else.